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# JAPANESE LAWS

ON

## INDUSTRIAL

## PROPERTY

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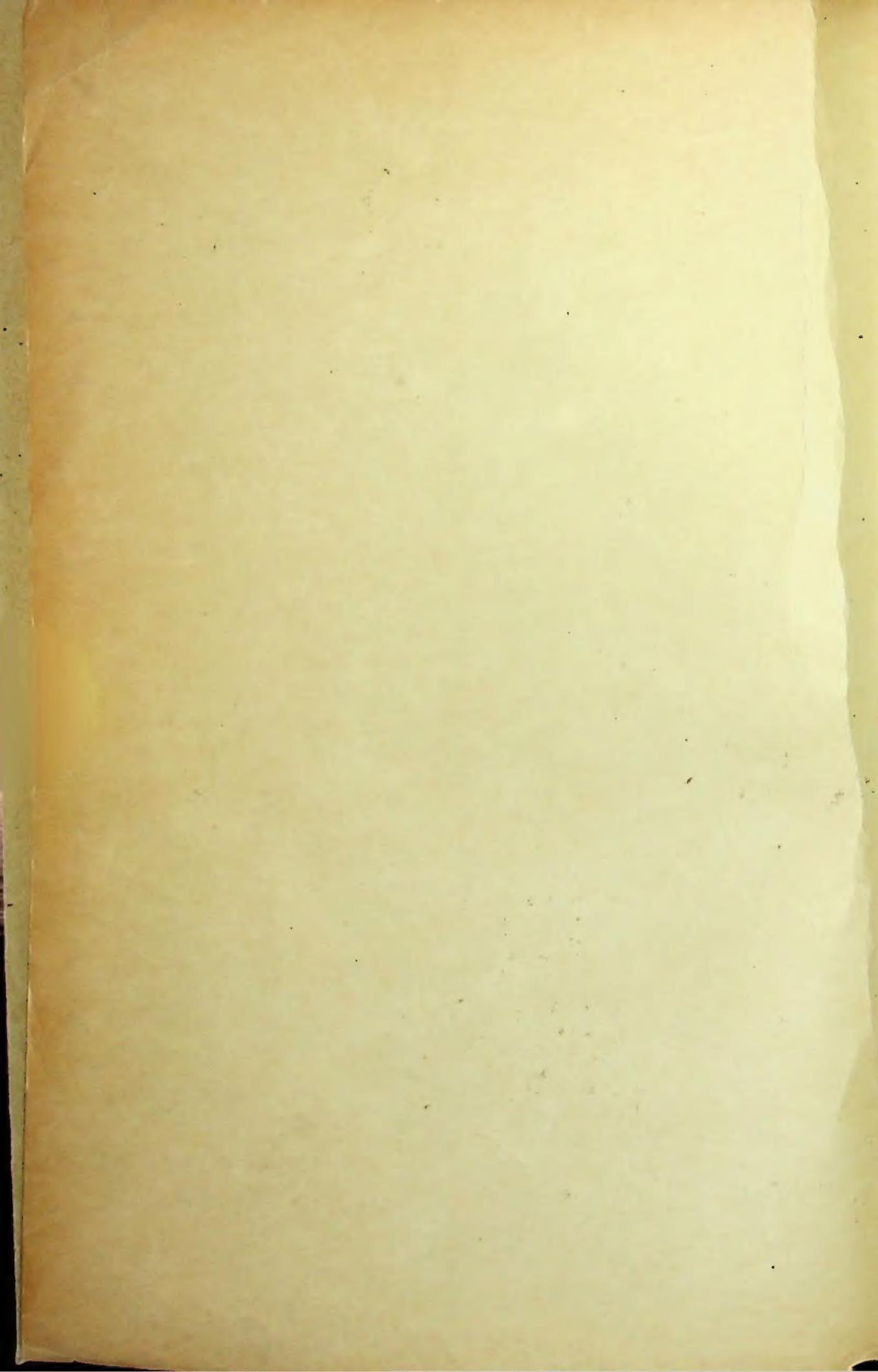
## SOME JAPANESE INVENTIONS



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# JAPANESE LAWS

ON

## INDUSTRIAL PROPERTY

WITH A DESCRIPTION OF

## SOME JAPANESE INVENTIONS

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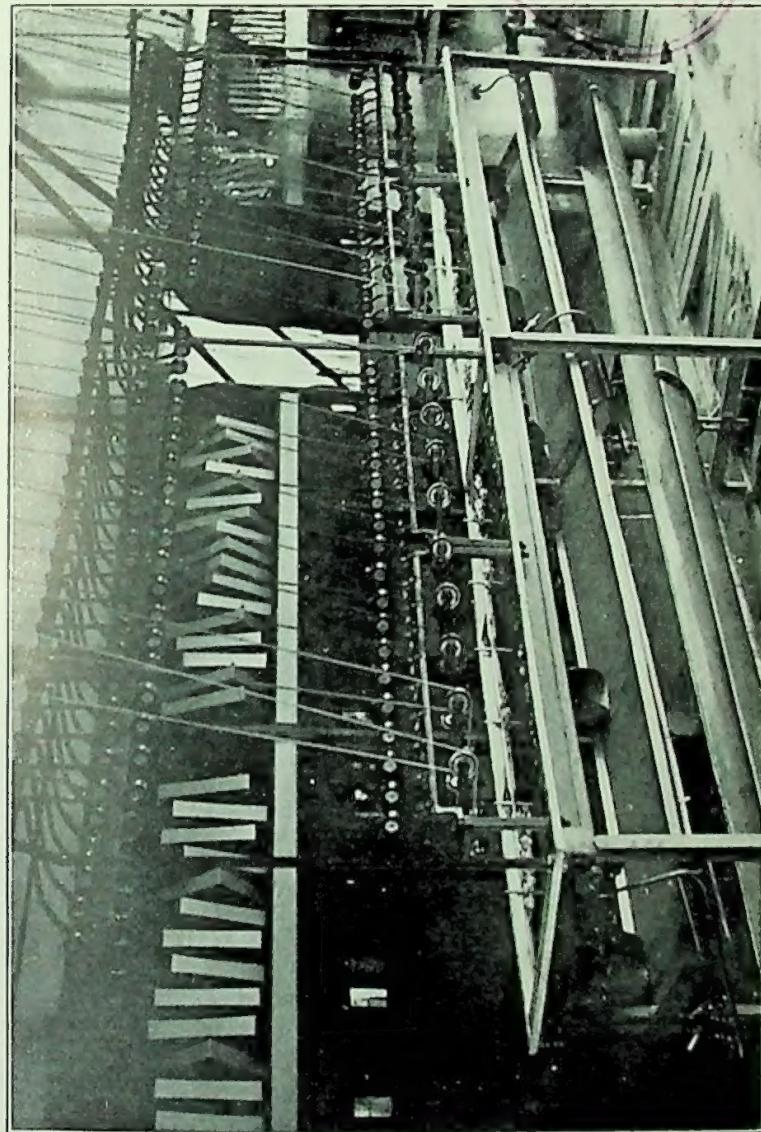
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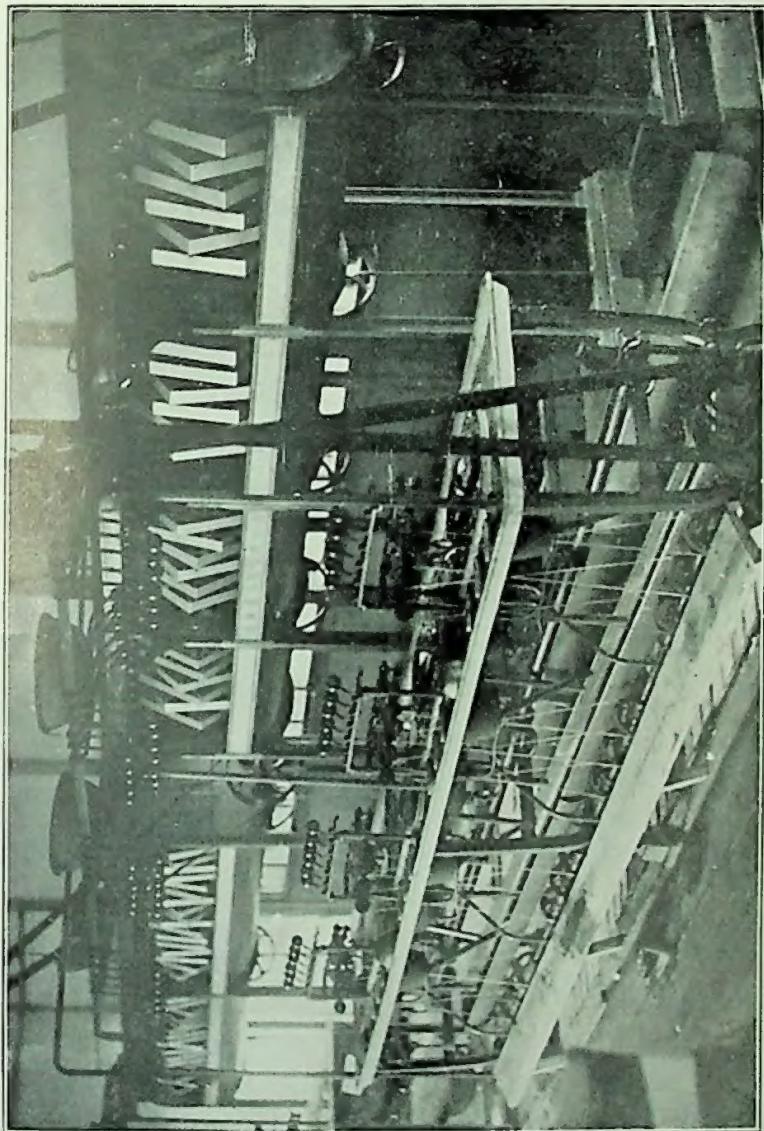
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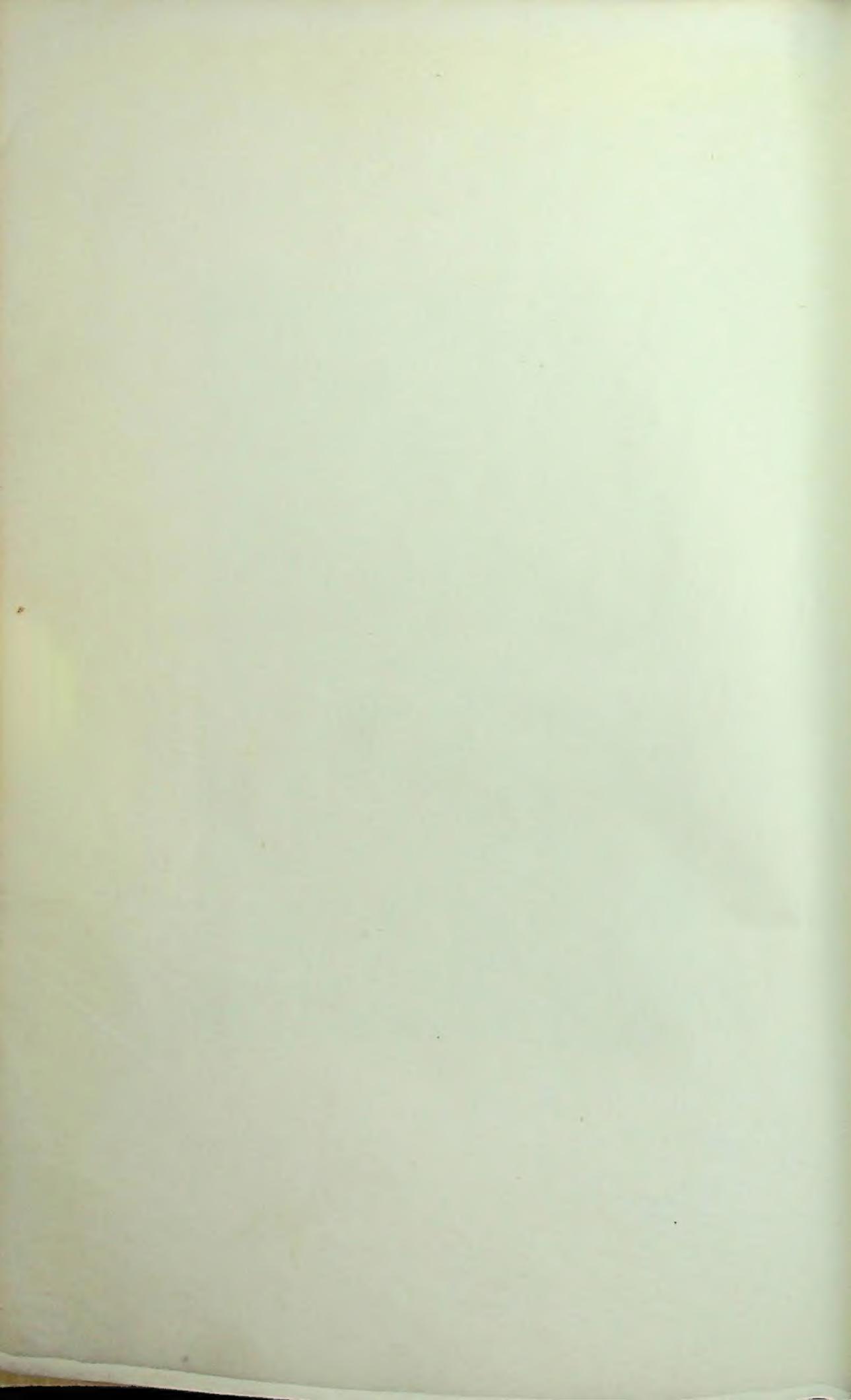
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Showing the working of the inventions made by N. Minorikawa.

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Showing the working of the inventions made by N. Minorikawa.





AKAO MATTING FACTORY.



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## INTRODUCTION.

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Since the long closed doors of Japan were first opened to the western countries by the United States, some fifty years ago, an unbroken friendship has existed between the two countries. By far the great part of the principles of western civilization since introduced into Japan, came from America, and among other things Japan owes much of her system for the protection on industrial property to the United States.

Since the promulgation of the first patent law in the 4th year of Meiji (1871), there have been many changes in the laws concerning industrial property, but the Patent, the Design, and the Trade-mark Law of the 21st year of Meiji (1888) form the foundation of the present system. Prior to the framing of these laws, Mr. K. Takahashi, the then Director of the Patent Office, was sent abroad to study the regulations of western countries on the subject. In America, especially, through the kindness of the officials of the Patent Office, and also of the patent agents, he was enabled to investigate thoroughly the American Law and practice. On his return he submitted a report, which naturally formed the principal material of subsequent legislation on industrial property. Thus many American principles found entrance to the Patent, Design, and Trade-mark, Laws and Rules of the 21st year of Meiji.

Such being the relation of the American Law to the Japanese Patent, Design, and Trade-mark, Laws, we think it may be interesting to the people of the United States to know, and we deem it our duty to let them know, how Japan has digested the American principles and what nourishment she has received from them. With such an end in view we have written in this small book a brief history of Japanese legislation on industrial property, and have explained the Patent, Design, and Trade-mark, Laws and Rules now in force. We have also given descriptions of a few Japanese inventions, made and protected under these laws.

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## PART I.

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### CHAPTER I.

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#### HISTORY OF LEGISLATION ON INDUSTRIAL PROPERTY IN JAPAN.

The protection of industrial property in Japan dates back to the 4th year of Meiji (1871), when a law entitled "The Provisional Patent Law" was promulgated. The law was very defective, but we must remember that it was framed within three years of that great political and social revolution, the "Restoration of Meiji." This law, simple and defective as it was, contained many important ideas, and as a comparison of it with the law in force at present may not be without interest, we give a brief description of it below.

This law protected an invention made by an individual, or by a number of individuals, but it differs from the present law in this, that it protected only the invention of articles, but said nothing about the invention of processes. Like the present law it did not grant patents to inventions, however useful they might be, if they had been in common use for a long time. This restriction has been made in subsequent legislations more clear and definite by the use of the words "publicly known or publicly used."

In this law the term for patents was not one, but many, there being three terms of fifteen, ten, and seven years, granted according to the degree of importance of the inventions. But any patentee, who could not in the term of his patent make good the expenses incurred by him in the invention, was entitled to a prolongation of the term, if the invention was deemed useful and indispensable to society.

Patents were vendible, and if any patentee died during the term of his

patent, the right could be transferred to one of his relatives. Patentees could, during the terms of their patents, open branch offices in their own names, or impart their inventions to other persons.

As to procedure, the law was very defective, but those who applied for patents, were required to present with their applications the necessary drawings or models. These were to be lodged with the local authorities, whence they were forwarded to the Home Department to be filed there, priority being decided according to the order of their arrival at the Department; and every time a patent was granted, the Home Department published the name and residence of the patentee and the nature of the invention.

The patent fee was five "Ryo" per year, subject to increase or decrease according to the nature of the invention. A favorable provision in respect to this was, that patentees were permitted during a period of six months to sell their inventions on trial, and if they found their prospect good, then on the seventh month they were to pay the duty to the local authorities; but if their articles did not sell well, they could within the first six months petition for exemption from the duty. They could petition for exemption after the seventh month, but then the duty already paid in, was not given back. Every patented articles was required to bear the name of the patentee and the word "Patented," and those who tried to defraud the public by using the name of a patentee without authority, or by using the word "Patented" on articles not patented, were punished with fines.

The law, it seems however, did not suit the times, and the next year the Government revoked it till further notice. At the same time the Government instructed local authorities to report to the Home Department detailed accounts of inventions made within their respective jurisdictions. And when, in the 18th year of Meiji (1885), a new patent law was promulgated, the owners of the inventions thus reported to the Home Department (326 cases in all) were permitted to apply for patents for their inventions within six months from the coming into force of the law, although such inventions may be said in a sense to have been publicly known and publicly used; and those who were using such inventions, were also permitted to solicit within one year for licenses to use them.

Excepting the patent law of the 4th year of Meiji, which was provisional in character and was in force only a short time, legislation on industrial property in Japan was made in the order of; first, trade-mark law; second, patent law; and, last of all, design law.

The first trade-mark law in Japan was promulgated in the 17th year of Meiji (1884). This law consisted of twenty-four articles and supplementary rules. At the same time the procedure for registering trade-marks, consisting of twelve articles, was established.

We shall not enter into the details of this law, but there is in it one thing to be noted here. In this law house-signs which are as a general rule not registerable, were registered, provided that they had been in use from a time prior to the promulgation of the law, and that their exclusive use was acknowledged in commercial circles.

In the 18th year of Meiji (1885), the first definite patent law which consisted of twenty-eight articles and supplementary rules was promulgated. In this law the defects of the law of the 4th year were corrected, and that which was indefinite formerly was made definite. At the same time the procedure and various forms were settled.

One thing to be noted in this new law was that, in case a patent was nullified on account of there being a prior invention, the original inventor was entitled to a patent, but the term for such a patent could never extend beyond the date of expiry of the former one.

In the 19th year (1886) a Patent Office was first organized attached to the Department of Agriculture and Commerce. Thus the business of issuing patents and of registering trade-marks, which was before that time transacted separately in small offices, or in sections of the Bureau of Industry, began to be dealt with in one central office established for the purpose.

Since the 18th year (1885) specifications, drawings, and models of inventions patented, and representations of trade-marks registered, have been opened to public inspection. Since the 20th year (1887) the Official Trade-mark Gazette, and since the 22nd year (1889), the Official Patent Gazette, have been published.

In the 21st year (1888) a design law consisting of twenty-nine articles,

was promulgated by the Imperial Ordinance, No. 85. At the same time a new patent law consisting of forty-five articles, and a trade-mark law consisting of twenty-eight articles, were promulgated by the Imperial Ordinances Nos. 84 and 86. To carry these laws into effect the Department of Agriculture and Commerce issued in January of the next year design rules of nineteen articles, patent rules of fifty-four articles, and trade-mark rules of seventeen articles. The patent law and rules consisted of a far greater number of articles than the trade-mark or design laws and rules, and this is also the case in subsequent legislation. One reason for this is, however, that many of the articles of the first named were also applied to the other two.

Thus three laws on industrial property, with respect to patents, designs and trade-marks, have been perfected, forming one organic whole.

We shall not give here the articles of these laws and rules. But there are many things in this patent law to be specially noted. Like the patent law of the United States, Art. I. of this law restricted patentable inventions to those of new and useful arts, machines, the manufacture and composition of materials, and useful improvements thereof. By this law also provision for re-examination and for trial before the Office was made, and those who were not able to present the specifications or drawings with their applications, were permitted to file their applications first, and to send in the other documents within thirty days.

The above three laws and rules were thoroughly amended and enlarged in the 32nd year (1899). These amendments and enlargements were based upon the experience of the preceding ten years, and upon the necessity of extending the protection on industrial property to the people of other countries.

Till that time treaties of very old date were in force between Japan and western countries. Under these treaties the foreigners residing in this country enjoyed the privilege of extra-territoriality and were not amenable to the laws of Japan. However when Japan concluded a revised treaty with Great Britain (July 16, 1894), with the United States (Nov. 22, 1894), and with other countries, she promised them reciprocal protection of patents, designs, and trade-marks, and in the protocols to these treaties she agreed

to enter the International Union for the Protection of Industrial Property. In the treaty between Japan and Germany signed on the 4th of April, 1896, moreover, Japan agreed to carry into effect the articles concerning reciprocal protection of industrial property from the date of its ratification, prior to the coming into effect of the whole treaty. The treaty was ratified and exchanged on the 18th of November in the 29th year of Meiji (1896), and from that day dates Japan's protection of the industrial property of foreign subjects. The protection was extended to the subjects of other Powers also, before treaties with them came into force, and on the 15th of July, 1899, Japan joined the International Union, formed in Paris on the 20th of March, 1883.

Some time beforehand the Japanese Government made preparations for the coming into force of the revised treaties and, among other things, set about the work of revising the laws and rules concerning industrial property. But reciprocal protection of industrial property having begun between Japan and Germany, rules to be observed by foreign applicants were temporarily framed. Subsequently the Government revised and enlarged the Patent, the Design, and the Trade-mark, Law and Rules, so as to conform to the convention of the Union, and laid down rules to be observed by foreigners in obtaining and enjoying in Japan the protection of industrial property. The Government also made rules for the registration of patent, design, and trade-mark, agents, with the object of supervising them. On and after the 1st of July in the 32nd year of Meiji (1899) the three laws were enforced in Formosa also.

With a view to further promote the development of the protection of industrial property, the Government has drawn up a draft of a law concerning "Practical Designs" (Gebrauchs-muster), and intends to submit it to the next session of the Diet.

## CHAPTER II.

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### ORGANIZATION AND POWERS OF THE PATENT OFFICE.

Business concerning patents, designs, and trade-marks is dealt with in the Patent Office. The present Patent Office has been very recently organized according to the Imperial Ordinance No. 234 of the 36th year of Meiji (1903), and consists of one Director, four Secretaries and Technical Officials, fifteen Examiners, and twenty Assistant Examiners. There is also in the Office a force of clerks and draftsmen. The Director is under general control of the Minister of State for the Department of Agriculture and Commerce, and directs and supervises the business of the Office. The Director and Secretaries and Technical Officials officiate in trials in the Office ; the Examiners examine inventions, designs, and trade-marks ; the Assistant Examiners assist the Examiners ; and the clerks discharge their duties in various sections under the direction of their superior officers.

The business of the Patent Office is distributed among the following Sections :—

General Affairs Section, the duties of which are the examination of all applications, demands and drawings, as to whether they are in proper form or not ; publication of the Official Patent and the Official Trade-mark Gazette ; all official correspondence ; registration of patent agents ; and all other administrative and financial business.

Invention Section, which examines inventions, and decides whether they are entitled to patents or not.

Design Section, in which designs are examined, and decisions given whether they are to be registered or not.

Trade-mark Section, in which trade-marks are examined and decisions given whether they are to be registered or not.

Re-examination Section, in which are examined and decided those cases of inventions, designs, and trade-marks, for which, after rejection in

the first examination, application has been made for re-examination. To the Section is entrusted also the task of examining the circumstances in cases of interference in order to decide priority.

Trial Section, which hears and decides those cases of inventions, designs, and trade-marks, rejected after re-examination, and also all cases of conflict and nullification.

Register Section, in which all records are kept; inventions, designs, and trade-marks are registered and changes in their ownership entered; letters patent are issued; and all fees are received.

The Library, which has the charge of all documents, drawings, specimens, patterns, models and samples of inventions, designs and trade-marks dealt with in the Office, and also of scientific works and periodicals for reference.

Foreign Section, which is charged with correspondence with and reports to, the International Union and Patent Offices of the contracting Powers, and translation of and investigation into foreign laws on industrial property.

In each Section, except the Trial and the Re-examination Section, there is a Chief, who superintends, under the direction of the Director, the business assigned to the Section.

The Director cannot take part in any examination, but as the head of the Office, he has the power to supervise all the Sections, so as to make them work in unison and discharge their duties with dispatch.

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## CHAPTER III.

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### PATENT, DESIGN, AND TRADE-MARK, LAWS, AND PRACTICE.

Before entering into details of the laws on industrial property, we shall first explain briefly the principles and treatment common to them all.

**I. Examination, Re-examination, and Trial.**—Japan, in her patent, design, and trade-mark laws, has adopted, like the United States, an examining system. That is, all applications for patents or for registration of designs or trade-marks, are examined, before the patents are granted or the registration made. Any applicant whose invention, design, or trade-mark has been rejected in this examination, may demand re-examination; and the Director, on receiving such a demand, orders an Examiner not concerned in the previous examination to re-examine it. Anyone who is not satisfied with the decision of the re-examination may demand a trial before the Office.

In the following two cases the Office gives decisions also:—

- 1.—When there is a conflict between two or more patented inventions, or between two or more registered designs or trade-marks, or between a patented invention and an article or a process not patented, or between a registered design or trade-mark and a design or trade-mark not registered;
- 2.—When it is found that an invention has been patented, or a design or trade-mark has been registered, contrary to the provisions of the laws.

In the former case a party interested, and only a party interested, can bring an action before the Office to determine who is the rightful owner; in the latter case any person can demand a trial in order to have the patent or the registration adjudged void. In the above two cases, any party who is not satisfied with the decision of the Office, may appeal to the Supreme Court, but only on the ground that the law is applied

improperly or not applied at all. Thus means of asserting rightful claims are amply provided for by allowing appeal from the primary examination to re-examination, from re-examination to trial by the Office, and in certain cases, as mentioned above, from trial by the Office to the Supreme Court.

The Court of Trial of the Office is organized with either three or five Judges, the senior Judge of the three or five presiding. These Judges are nominated by the Director, who may also cancel any nomination and appoint another in the place. Any Judge is disqualified to officiate in the trial of a case in which he himself or his relatives are concerned, or in which he has been interested either directly or indirectly, or in which he took part in the previous examination as an Examiner of the Office.

**II. Application and Demand.**—Every application, demand, notice, etc., must be made by a document in the Japanese language, and a power of attorney, or certificate of nationality, when written in a foreign language, must be accompanied by a translation. Any owner of a Japanese patent or of a design or trade-mark registered in Japan, or any person who desires to make an application or demand to the Japanese Patent Office, must, if he has no domicile in Japan, appoint permanently as his agent a person who has a domicile in the Empire to represent him in all proceedings before the Office and in all denunciations and civil actions.

An application or a demand of a foreigner is required to be accompanied by a certificate of nationality or some other document certifying the place of his residence or of his business. For the benefit of foreigners we shall give here the requirements for a certificate of nationality.

Of the certificate of nationality there is no form, but such document must be signed by an authorized official or by a notary public, and must certify:—

- 1.—That the applicant is a subject or a native of a State or its territory, entitled, by a treaty, to enjoy in Japan protection on industrial property. Or,
- 2.—That the applicant has his domicile in one of the contracting States of the International Union on the Protection of Industrial Property, or its territory. Or,

- 3.—If the applicant is a corporation organized according to the law of such a country, then the document must certify that the applicant is a corporation registered as such, or that it has a domicile in that State. And a power of attorney given by such a corporation must be signed by its president, director, or manager, who has authority to represent the corporation, being duly certified by an authorized official or notary public, as to the signing member's qualifications, and must be accompanied by the certificate of the registration and of the nationality of the corporation, the certificate of the nationality of the signing member alone having no force at all. Or,
- 4.—If the applicant is a firm composed of two or more members, then the nationality of each member, and the fact that they are carrying on a business jointly as a firm, must be certified. And if any member of the firm signs a power of attorney on behalf of the other members, it must be certified that he is authorized to perform such an act.

**III. Regulations concerning Negligence on the Part of the Applicant.**—Any application or demand concerning a patent, design, or trade-mark becomes invalid, in case one who has lodged such application or demand, neglects to take proper procedure in the Office. So also any document, model, or specimen to be deposited in the Office in connection with an invention, trade-mark, or design, will not be received, if such document, model, or specimen is not in conformity with the forms prescribed in the laws and rules, or if the registration tax or fee is not paid, or if it is not deposited within the period or before the date prescribed by law or ordinance, or ordered, according to law or ordinance, by the Director or by a presiding Judge. And any such document, model, or specimen, received by the Bureau, will be rejected, if it is found to come under one of the above mentioned cases.

**IV. Rules conforming to the Convention of the Union.**—In conformity to Art. IV. of the Convention of the International Union, the Japanese Law grants a priority of twelve months, in case of a patent, and of four months, in case of a design or a trade-mark, to a person who has filed an application

for a patent or for registration of a design or a trade-mark at the Patent Office of one of the contracting States. Such person, desiring to obtain a Japanese patent also on the same invention or to register the same design or trade-mark at the Japanese Patent Office, is, therefore, to file his application at the Japanese Office within the specified period, counting from the date of his original application, accompanied by a copy, certified by the Government of the State where the original application was made, of the application, specification, and drawings originally filed.

**V. Regulations concerning Exhibition.**—A special privilege is given to an invention, a design, or a trade-mark, to be exhibited at an exhibition or a competitive show held by the Central Government or by a local authority. If the owner of such an invention, design, or trade-mark intends to apply for a patent or registration, he is to give notice to the Office of his intention, before he exhibits it and to file his application within six months from the date of the receipt of the invention, design, or trade-mark at the exhibition or show, in which case the application will be considered as filed at the date of the notice. In the case of an application for a patent of an invention, or registration of a design or trade-mark, to be exhibited at an international exhibition held in one of the contracting States of the Union, the rules of that country in such a case are recognized, and consequently such an application is to be accompanied by a certificate showing the period of priority granted by that State.

**VI. Penalties.**—Any person who infringes the patent, the design, or the trade-mark right of another, will be punished, in the case of patent right, with confinement with hard labor for not less than fifteen days and not more than three years, or with a fine of not less than ten *yen* and not more than five hundred *yen*; in the case of design right, with confinement with hard labor of not less than fifteen days and not more than one year, or with a fine of not less than ten *yen* and not more than two hundred *yen*; and in the case of trade-mark right, with confinement with hard labor of not less than fifteen days and not more than two years, or with a fine not less than ten *yen* and not more than five hundred *yen*. For infringement of the patent right the offender is also liable to pay damages, and the illegal articles will be forfeited and given to the injured party.

Having given in this chapter a summary of the principles and practices common to the three branches of industrial property, we shall next proceed, in the following chapters, to treat them separately. In this we do nothing more than to reproduce the substance of the laws and practices, but, we hope, in a form more convenient for reference.

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## CHAPTER IV.

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### PATENT LAW.

**I. Who may obtain a Patent.**—In the Patent Law there is no restriction as to who may obtain a patent. So that any original inventor or his assignee or successor, whether a Japanese subject or an alien, or even a subject of non-treaty power if actually residing in Japan, may apply for a patent. However only a natural person can be an inventor, so that a juridical person cannot apply for a patent, except as an assignee or successor. An application by an assignee or a successor must be accompanied by a document testifying the assignment or the certificate of the succession; and if such assignment or succession takes place after the filing of an application, the assignee or successor must apply to replace the name of the original applicant by his own, besides producing the above document. For assignment or succession of a patent, there is a special rule. No official of the Patent Office can apply for a patent.

**II. Kinds of Patent.**—There are three kinds of patent:—

- 1.—The Original Patent which is granted for an original invention,
- 2.—The Patent granted for an improvement on a patent in another's possession,
- 3.—The Supplementary Patent which is also an improvement but by a patent holder on a patent in his own possession. Supplementary patents are transferred with the original.

**III. Subject Matter.**—Only an invention of an industrial article or a process, or an improvement thereof, is entitled to a patent; so that nothing but a process of industrial manufacture or an invention useful for industrial purposes, is patentable. An invention must also be original, so that no invention not first or new is entitled to a patent. The following articles are also not patentable:—

- 1.—Articles of food or drink or taste (Genuss-mittel);
- 2.—Medicines or methods of compounding them;
- 3.—Articles which are prejudicial to public order or morality;
- 4.—Articles publicly known or used before the time of the application, excepting those which are known to the public by way of experiment for a term not exceeding two years.

**IV. Application, Demand, and Grant.**—To obtain a patent an application addressed to the Director of the Patent Office, is to be filed at the Patent Office, accompanied by a specification and the necessary drawings, one application being limited to a single invention. The specification must contain:—

- 1.—The title of the invention.
- 2.—The nature and purpose of the invention.
- 3.—A brief explanation of the drawings.
- 4.—Detailed description of the invention, and, if it is an improvement, also its relation to the original invention.

5.—The parts to which the applicant lays claim as his own invention. In the claim only the essential parts of the invention are to be mentioned, and in the drawings the parts necessary to explain the invention, and if it is an improvement, to show its relation to the original invention, must be shown. After accepting an application and the accompanying documents, the Director, if he thinks it necessary, may order the applicant to deposit a model or specimen, and such a model or specimen must be made of a strong material, and must not exceed in size 1 cubic "shaku" (about 1 cubic foot), except in cases in which it is impossible.

On receiving applications the Director enters them on the Book of Application and notifies the applicants the serial number of their applications. The applications are then referred to Examiners, who examine

them according to the class and in the order of the serial number of applications. As the Patent Law grants a patent to the first inventor only, the Office decides also, as in the United States, cases of interference. Thus, if an Examiner finds any application entrusted to him to interfere with another pending application or with a patented invention, he gives a decision of an interference, and informs the parties interested of the decision. If the parties interested are satisfied with the decision, the Director orders them to produce minute circumstances concerning their inventions, and submit the case to an Examiner to decide the priority. Thus an interference requires two decisions; first the decision by which an invention is declared to interfere with another, and second the decision by which the priority is established. Any party not satisfied with one or both of the decisions, may demand a re-examination or a trial before the Office, as has been mentioned above.

After going through such procedure, when an invention is decided to be entitled to a patent, the Director issues letters-patent, signed by himself, and delivers it to the applicant together with the specification and drawings. The statement of the decision is also delivered to the applicant.

**V. Term.**—The term for a patent is fifteen years, counting from the date of its registry on the Patent Register, and a supplementary patent expires with its original. As for a re-issued patent, it is nothing more than a correction of errors in the specification and drawings, and its term can never extend beyond the date of the expiry of its original.

**VI. Patent Fee.**—The fee for a patent is ten *yen* per annum for the first three years, fifteen *yen* per annum for the next three years, and so on, the fee being increased by five *yen* per annum after every three consecutive years. The fee for a supplementary patent is twenty *yen* to be paid once for all. For registration of an assignment of a patent or of making it a joint property, the fee is ten *yen*, and for registration of a pledge it is five *yen*.

**VII. When a Patent is void.**—A patent is void, if it is found that the invention for which the patent has been granted, is not original, or is publicly known or used, or is an article of food, drink or taste, or is prejudicial to public order or morality, or if matters important to the

working of the invention have been purposely omitted from the specification, or if matters not important have been purposely inserted in it. And any person who has found any patent to be void, may demand a trial before the Office, as has been already said.

**VIII. Revocation.**—Every patent holder incurs an obligation to exploit the invention for which the patent has been granted. But in this respect the Japanese Law takes a liberal view, and a patent may be revoked only when the patentee does not work and exploit his invention in the Empire within three years from the date of his letters-patent, or when he discontinues it for more than three years, without proper reason, and refuses to accept an offer of another to buy or use the invention under reasonable terms. So that no patent will be revoked on the ground of non-exploiting alone, but a compulsory measure is taken only in the case when a patent holder, while he himself is not giving to the public the benefit of the invention, prevents others from availing themselves of it. The Director is authorized to revoke also a patent when any patentee fails to pay the patent fee within sixty days after it falls due, or when he does not appoint the agent required by the law within six months, without proper reason.

**IX. Transfer.**—In the Patent Law a patent is considered as ordinary property, and is allowed to be assigned with or without limitations, or to be made a joint property, or to be pledged as a security. But to set up such an act against a third person, it must be registered at the Patent Office, and to register such an act, an assignee, joint owners, or holder of the pledge must send in an application, together with the letters-patent and documents, in original and duplicate, certifying the cause of registration, and paying the fee as mentioned above.

## CHAPTER V.

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### DESIGN LAW.

**I. Who may enjoy Exclusive Right to a Design.**—Any author of a design or his assignee or successor may have the design registered and enjoy exclusive right to use it. But the right to a design produced by a person at the request of another or at the expense of his employer, belongs to the employer or the person at whose request it was devised. Any applicant for the registration of a design is, therefore, required to produce a certificate that he has the right to make such an application, and such certificate is to conform to the forms described in connection with an application for a patent. As in the case of a patent an official of the Patent Office cannot have a design registered.

**II. Kinds of Designs.**—There are two kinds of designs, the original design and the similar design.

**III. Subject Matter.**—Any new forms, patterns, colors, or their combinations, which are applicable to articles of industry, may be registered ; in other words, any designs of aesthetic worth, not of practical utility, are entitled to protection. Designs that cannot be registered are those which are the same or similar to the Imperial Chrysanthemum Crest, those which are prejudicial to public order or morality, those which have been publicly known or used before the application for registration is made or those similar thereto, excepting those similar to the applicant's own design.

**IV. Restrictions to Exclusive Use of a Design.**—The exclusive use of a design is restricted to an article or articles designated by the applicant in his application.

**V. Application.**—An application for registration of a design is to be filed at the Patent Office. It must be accompanied by a model, specimen, or drawing, and must contain names of the articles with which the design is to be used. One application is limited to one design and one class of articles, according to the classification fixed by the Minister for Agriculture

and Commerce. A model or specimen must not be larger than a cube of 2 *shaku* (1 *shaku* being about 1 foot) excepting when a larger size is absolutely necessary. The drawing must show all essential parts of the design, or an unmounted photograph may be produced in place of the drawing.

When two or more applications are made on identical or similar designs, the earliest will be registered, and when the applications are made at the same time none will be registered.

**VI. Term.**—The term allowed for the exclusive use of a design is ten years from the day of its registry, and that for a similar design expires with the original.

**VII. Fees.**—The design fee must be paid for each design and for each class of articles on which it is used, at the rate of three *yen* yearly from the first to the third year, five *yen* yearly from the fourth to the seventh year, and seven *yen* yearly from the eighth to the tenth year. To register a similar design three *yen* is to be paid once for all. For registration of assignment or of making it a joint property the fee is two *yen*, and for registration of pledge it is one *yen*.

**VIII. When void.**—A design is void even after it is registered, if it is found to be not in conformity with the law as mentioned above.

**IX. When revoked.**—The owner of a design registered has no obligation to use it, but if he fails to pay the design fee or does not appoint an agent required by the law within six months, without sufficient reason, the Commissioner may cancel the registration.

**X. Transfer.**—A design, like a patent, can be assigned, be made a joint property, or be pledged as a security. But unless such an act is registered at the Patent Office, it cannot be set up against a third party. In making such a registration, a similar design, if there is one, must be transferred together with its original, otherwise such a registration will not be made. The procedure for obtaining such a registration is the same as in the case of a patent.

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## CHAPTER VI.

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### TRADE-MARK LAW.

**I. Who may enjoy the Exclusive Use of a Trade-mark.**—Any individual, firm, or company, or even a trade-union, that desires the exclusive use of a trade-mark to distinguish its merchandise, may apply for its registration. When two or more persons apply to register a trade-mark to be used by them jointly, such an application must be accompanied by a document certifying that they are carrying on a business jointly.

**II. Subject Matter.**—There is no rule concerning the subject matter of the trade-mark, but nothing that has not special and distinguishing features, can be registered as a trade-mark. The following also cannot be registered as trade-marks :—

- 1.—Those which are identical with, or similar to, the Imperial Chrysanthemum Crest ;
- 2.—Those which are identical with, or similar to, the national flag, the military and naval flags, or the badges of Imperial Orders of Japan, or the national flag of other countries ;
- 3.—Those which are or may be injurious to public order or morality, or calculated to deceive the public ;
- 4.—Those which are identical with, or similar to, marks already registered by another, or marks in the case of which not more than one year has elapsed since the registration lost its validity and which are intended to be applied to identical goods ;
- 5.—Those which are identical with, or similar to, marks used by another before the operation of this Law ;
- 6.—Those which indicate merely the common names of goods, or the place of production, those which indicate the quality, nature, or form of goods by means of characters, devices, or marks generally

used in commerce, or those which are the name of a person, a trade, a company, or a firm in common use and written in ordinary style;

7.—Borders, ground designs, or marks which have no special or distinctive appearance.

**IV. Scope of the Exclusive Use.**—The exclusive use of a trade-mark is limited to the articles designated by an applicant in his application.

**V. Application.**—An applicant for registration of a trade-mark must designate in his application the articles on which the trade-mark is to be used, and one application is limited to one trade-mark and to one class of goods, as classified by the Minister for Agriculture and Commerce. An application must be accompanied by specimens of the trade-mark, which must be made on strong paper, and generally three of them are required for each application. If a trade-mark to be registered in Japan, is one which is already registered in another State, such an application must be accompanied by a copy of the certificate of the registration and the specification filed in that State, duly certified.

If two or more persons apply for registration of identical or similar trade-marks, the first application will be registered, and if the applications are filed at the same time, none will be registered.

On receiving the written statement that his trade-mark has been allowed to be registered, an applicant must pay the trade-mark fee, and at the same time deposit at the Office a printing block of the mark.

**VI. Term.**—The term of the exclusive use of a trade-mark is twenty years. The term for a trade-mark, already registered in another State, co-extends with the term allowed in that State, but in no case can it exceed twenty years.

If any person desires to continue the exclusive use of his trade-mark after the expiration of a term, he is to send in beforehand an application for renewal together with the former certificate of registration. And if such an applicant has obtained a renewed registration in another country, his application is to be accompanied by a document testifying that such a certificate has been obtained in that country.

**VII. Fee.**—The trade-mark fee is thirty *yen* for each trade-mark

and for each class of merchandise. For renewal of a registration and for registration of a similar trade-mark the same sum must be paid.

**VIII. When a Registered Trade-mark is void.**—A registered trade-mark is void, if it is found to have been registered in contravention to the law, as mentioned above. But there are some exceptions to this. Those which have been registered but were not first in application, those which are identical with or similar to, marks used by another from a time prior to the operation of this law, or those which are identical with or similar to, marks in the case of which not more than one year has elapsed since the registration lost its validity and which are intended to be applied to identical goods, are not voidable after a lapse of three years from the date of registration.

**IX. When Registration is cancelled.**—A registered trade-mark is liable to be cancelled, if the owner adds to it a false statement concerning the quality, the place of production, etc., or if he neglects to appoint the agent required by the law for more than six months, without proper reason. The registration of a trade-mark is cancelled only in the above mentioned cases, the owner's not using it not affecting the force of registration. However, the right to it expires, when the owner retires from the business in which the trade-mark was used.

**X. Transfer.**—A trade-mark can be assigned or be made a joint property, but unless such a transfer is registered at the Office it cannot have any force against a third party. A trade-mark must be transferred together with the business; it can never be made over alone. In transfer of a trade-mark which has a similar trade-mark, the similar trade-mark must be transferred together with the original, or it must be disused, otherwise such transfer will not be registered.

## CHAPTER VII.

### STATISTICS.

The following are the number of applications filed at the Japanese Office by Japanese and foreigners, for patents and for registration of designs and trade-marks, and the number of patents granted and of designs and trade-marks registered, since the enforcement of the laws:

#### Patents.

		Number of Applications.	Number of Patents granted.
1885-18th year of Meiji.		425	99
1886-19th	" "	1,384	205
1887-20th	" "	906	109
1888-21st	" "	778	183
1889-22nd	" "	1,064	209
1890-23rd	" "	1,180	240
1891-24th	" "	1,288	367
1892-25th	" "	1,344	379
1893-26th	" "	1,337	318
1894-27th	" "	1,250	326
1895-28th	" "	1,112	223
1896-29th	" "	1,213	169
1897-30th	" "	1,542	188
1898-31st	" "	1,789	293
1899-32nd	" "	1,915	597
1900-33rd	" "	1,980	586
1901-34th	" "	2,372	606
1902-35th	" "	3,053	871
1903-36th	" "	3,253	1024
Total		29,195	6992

Designs.

		Number of Applications.	Number of Registrations.
1889-22nd year of Meiji.		176	23
1890-23rd	" "	498	82
1891-24th	" "	290	117
1892-25th	" "	262	48
1893-26th	" "	250	50
1894-27th	" "	336	64
1895-28th	" "	318	91
1896-29th	" "	300	66
1897-30th	" "	320	60
1898-31st	" "	265	52
1899-32nd	" "	342	139
1900-33rd	" "	397	130
1901-34th	" "	514	141
1902-35th	" "	930	252
1903-36th	" "	1,181	366
Total		6,377	1,573

Trade-marks.

		Number of Applications.	Number of Registrations.
1884-17th year of Meiji.		883	nil
1885-18th	" "	1,296	949
1886-19th	" "	624	508
1887-20th	" "	757	361
1888-21st	" "	568	436
1889-22nd	" "	1,029	664
1890-23rd	" "	819	583
1891-24th	" "	898	554
1892-25th	" "	1,146	588
1893-26th	" "	1,243	648

		Number of Applications.	Number of Registrations.
1894-27th year of Meiji.		1,350	877
1895-28th	" "	1,373	923
1896-29th	" "	1,578	858
1897-30th	" "	3,228	2,335
1898-31st	" "	2,232	1,597
1899-32nd	" "	2,837	1,942
1900-33rd	" "	2,776	1,767
1901-34th	" "	2,608	1,621
1902-35th	" "	3,529	2,016
1903-36th	" "	3,743	1,924
Total		34,417	21,151

The following table shows the number of applications, filed at the Japanese Office by foreigners, for patents and registration of designs and trade-marks, and the number of patents granted and the number of designs and trade-marks registered, from November of the 29th year of Meiji to December of the 36th year:—

	Patents.		Designs.		Trade-marks.	
	Number of applications.	Number registered.	Number of applications.	Number registered.	Number of applications.	Number registered.
Germany	228	100	7	1	1,274	950
Great Britain	339	189	12	9	1,598	1,183
The United States.	831	486	1	1	450	338
Switzerland	11	8			53	32
Portugal	1	1			1	1
France	78	43	4	1	245	200
Denmark	20	8			3	3
Holland	10	3			7	5
Sweden-Norway	18	11			4	3
Belgium	3	2			8	4
Spain	4				11	8

	Number of applications, registered.					
Austria-Hungary	23	10			14	14
Italy	12	5			4	3
Brazil		2				
Russia		8				
Total	1,586	869	24	12	3,672	2,744

Besides the above the number of applications made by foreigners residing in Japan and the number of registrations are as follows:—

	Patents.	Designs.	Trade-marks.
	Number of applications, registered.	Number of applications, registered.	Number of applications, registered.
Turkey			4 2
China			20 10
Korea	5	2	
Total	5	2	24 12

#### Revenue of the Patent Office.

	Y.E.N. about \$ 0.50, U.S. gold
1886-19th year of Meiji.	8,556.000
1887-20th " "	7,058.000
1888-21st " "	10,429.000
1889-22nd " "	17,368.700
1890-23rd (Jan. to March next year)	22,794.800
1891-24th year of Meiji.	22,004.710
1892-25th " "	22,937.882
1893-26th " "	22,745.600
1894-27th " "	23,881.550
1895-28th " "	22,065.978
1896-29th " "	38,797.316
1897-30th " "	68,262.550
1898-31st " "	59,396.500
1899-32nd " "	87,782.700
1900-33rd " "	91,300.000
1901-34th " "	91,058.000
1902-35th " "	124,979.900

## PART II.

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### PRELIMINARY REMARK.

In Part II, it was our intention to describe Japanese inventions in various branches of industry, and to make known to the world and, especially to the people of the United States, what progress the Japanese are making in that line. Lack of time and other unavoidable circumstances, however, prevented us from carrying out this plan, and obliged us to restrict ourselves to the description of a few machines invented by the Japanese in connection with the manufacture of staple articles of trade between Japan and America.

Before giving these descriptions, we must ask our readers to direct their attention to the fact that since the opening of Japan to the countries of Europe and America, the Japanese Government and people have been straining all their energy to adopt the principles of occidental civilization, and have been paying little attention to things purely Japanese, whether mental or material. Consequently, while Japan has made considerable progress in many of those industries introduced from Europe and America, she has advanced but very slowly in purely Japanese industries. These native industries, being mostly development of the by-productions of the farmers, are yet in the stage of manual domestic work. For this reason any mechanical inventions in connection with them are not of course to be compared with those highly developed machines used in large factories in Europe and America. However, these inventions made by the Japanese being suitable to the conditions of their industries, show what inventive faculty they have; and a description of a few of them will be interesting, we believe, to consumers of Japanese goods by acquainting them with the methods by which these articles are made.

In the following pages we propose to describe machines for the manufacture of :—

1. Tea.	2. Raw Silk.
3. Matting, plain and fancy.	4. Matches.

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## CHAPTER I.

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### MACHINES FOR THE MANUFACTURE OF TEA.

The tea manufactured in Japan is principally what is known as green tea. From ancient times it has been manufactured by hand, and until very recent times there had been almost no improvement. A little over ten years ago, machines began to be used in tea manufacture. Since then many inventions and improvements have been made and patented, and machines are now being very widely used in the business.

Before giving description of a few of these tea manufacturing machines, it may be of interest to the readers to know the process formerly used in Japan for the preparation of tea.

The first operation is to pick from the tea bushes young leaves, when two or three of them are developed at the end of the branch. The leaves are then steamed. For this purpose from two to three pounds are put into a cylindrical vessel with a wire gauze bottom, commonly about twenty inches in diameter and eight or nine inches deep, and this vessel is placed over a pan with boiling water filled up to within three inches of the brim. The leaves are steamed for about one minute, being briskly stirred about all the time; then they are spread on a cooling floor to cool. About ten pounds of these cooled leaves are then placed over what is known as "hoiro," a kind of stove, about  $4\frac{1}{2}$  feet long,  $2\frac{1}{2}$  feet broad and 2 feet

high, covered with a box about 6 inches deep with a bottom of strong paper. In this cover, or box, the leaves receive various kinds of operations for over one hour, then they are dried in a drying pan, and the manufacture is completed. The first operation is heating the leaves over the "hoiro," the object of which is to evaporate and equalize the moisture in the steamed leaves, and to soften the stems of the leaves. For this purpose the leaves are spread on the "hoiro" and are shuffled and stirred violently with the hands, till from 35 to 38 per cent of the moisture is evaporated, the leaves wrinkle length-wise, and the color changes to a dark green.

The next operation is called the rough, or first, rolling, and has for its object to soften the leaves. For the first five or six minutes the leaves on the "hoiro" are softly but quickly tumbled over from left to right and from right to left, with increasing force as the moisture evaporates. If the leaves are not well tumbled over at this stage, they pile up and there is a danger of causing fermentation. Then the leaves are kneaded between the two hands, all the while care being taken to break up balls or lumps, till the stems change their color from yellowish brown to green, the leaf stalks crack and become light green, and the leaves are separated from the stems. Before finishing this stage of the process the leaves are again tumbled over, taking care not to allow them to dry on the outside, for the purpose of breaking up any balls that may be formed, and at the same time of making the leaves to curl more or less. When the leaves are so far dry as not to give out water when squeezed between the thumb and finger, they are taken from the "hoiro," which is then well cleaned.

The next process is the finishing, or second, rolling, the object of which is to roll or curl the leaves. At first for six or seven minutes the leaves are softly rolled between the two hands, gradually pressing harder as the leaves get dry. Then the leaves are kneaded between the two hands, giving to each handful seven or eight rollings, so as not to let the leaves, which are more or less rolled, dry on the outside, and at the same time in order to lengthen them. This manipulation is continued till the leaves turn a blackish green. The leaves are then rolled to curl them. This is done slowly but with a hard pressure of the hands. To produce a superior kind of tea this operation must be done very carefully and it takes

much more time than in making tea of common quality. After this one half of the leaves on the "hoiro" is taken out and the remaining half is subjected to a kneading operation, by which the moisture contained within is pressed out, and the leaves which are dried outside are made soft. When the leaves are dry enough, they are carefully curled. This process takes about forty minutes, but of course it takes much more time to produce a superior quality of tea. To produce a superior quality the leaves are operated upon on the "hoiro" till they become a yellowish green, but to produce a medium quality the leaves are taken out of the "hoiro," when they have been so much rolled as not to uncurl. From the steaming of the leaves till they are fired the whole process takes a little over two hours.

The process of manufacturing tea in Japan consists of the above operations, and machines have been invented to do these operations mechanically. As to the picking of the leaves, no machine has been invented, and perhaps never will be. Of the machines for steaming tea leaves there are many inventions, but it does not seem necessary to describe any of them. The present development of the mechanical manufacture of tea has been brought about chiefly by the success of machines for beating, rolling and firing the leaves. We shall select typical machines and describe them in the order of the operation for which they are used.

### 1. Tea Leaf Beating Machines.

Patent No. 3757 { Patentee, S. Suzuki.  
                          { Patented, Oct. 11, 1899.

As is seen by Figs. 1 and 2 this machine consists of two beams (A A) fixed on the two sides of a common furnace and projecting over a third side, a casing (B) which moves over the beams, and a cylinder (C) of wire-net horizontally placed within the casing so as to revolve. On the inner side of the cylinder a number of boards (D D . . .) are fixed along the whole length, and round the axle (E) of the cylinder are fixed a number of square arms (F F . . . .). The cylinder is generally charged

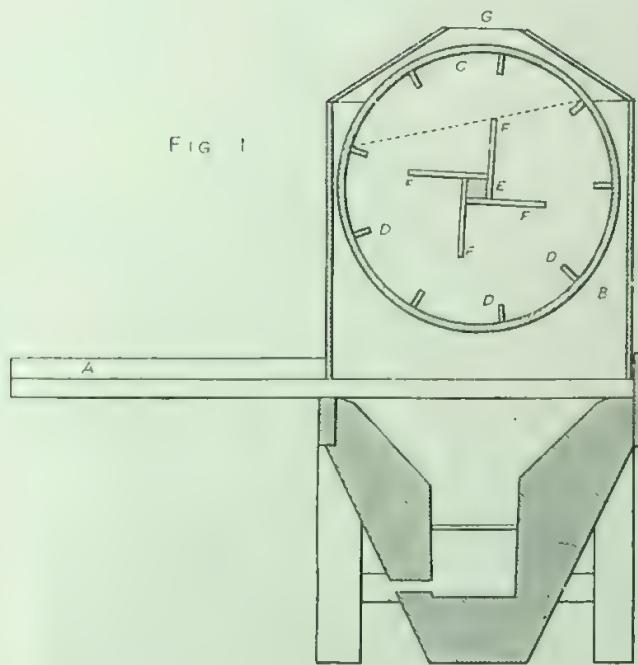
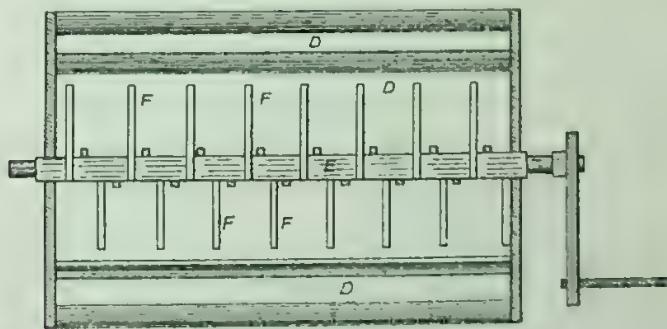


FIG. 1

with about 20 pounds of steamed leaves, and after closing the casing it is moved on above the fire. The cylinder together with the axle is then turned for from 20 to 25 minutes. The boards on the inner side of the cylinder then throw up the leaves to the top, and on coming down they strike

Fig. 2.



against the square arms around the axle. Thus while the leaves are flying about the inside of the cylinder, they are properly beaten. At the same time the steam escapes from the opening (G) at the top of the casing. By manual work it takes one workman 30 to 50 minutes to beat

9 pounds of leaves, but by using this machine the same workman can beat 20 pounds, one charge of the cylinder, in 20 to 25 minutes.

Without fire in the furnace this machine may also be used to break up balls or lumps of rolled leaves.

## 2. Machine for the First Rolling of Tea Leaves.

Patent No. 3301 { Patentee, K. Takabayashi.  
{ Patented, Dec. 22, 1898.

This machine consists, as is seen in Figs. 3-5, of flat metal rolling blades (A A ....), the free ends of which can be elevated or lowered to any required degree, and which are attached to an axle (B) fixed over a pan (C) with a semi-cylindrical bottom. The pan is connected with the furnace (D) below by tubes (E E) at both sides (or at one side only) to

FIG. 3.

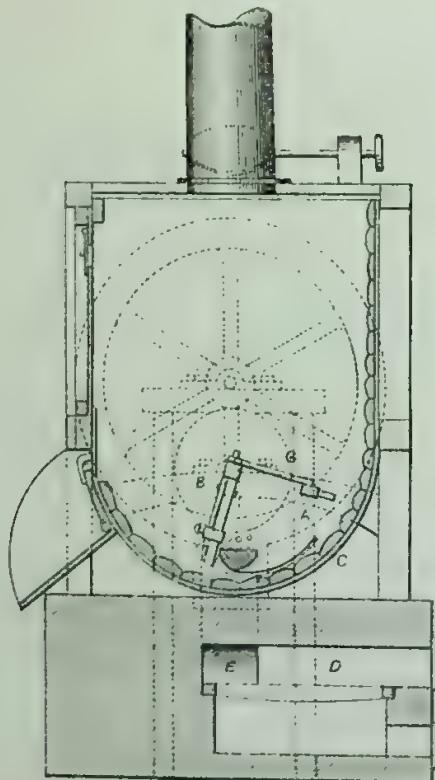


FIG. 5.

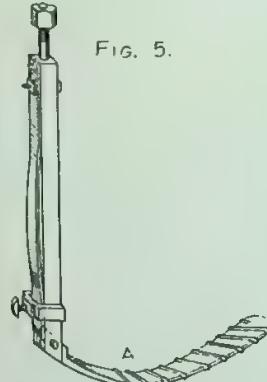
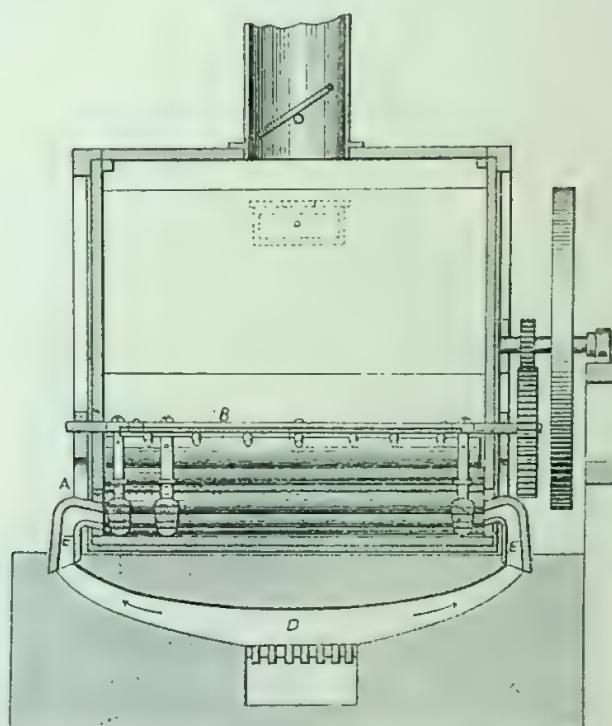


Fig. 4



blow in heated air. At the top of the structure there is fixed a ventilating apparatus (not shown in the Figs.) for the escape of the steam and the heated air sent from the furnace below. This machine can be used not only for rolling tea leaves but also for beating them. If the free ends of the rolling blades are raised, and then the axle is turned, the blades together with sweepers (G G ....) will throw the leaves up and against the sides of the pan, thus beating them. When the leaves are well beaten, the free ends of the blades are lowered so as to correspond with the curved bottom of the pan, and the axle is turned to roll the leaves. By using this machine not only is labor economized, but also much time is saved. Nine pounds of leaves which it would take one workman two hours to roll, are easily rolled in from 20 to 25 minutes.

Patent No. 4718 { Patentee, Y. Takabayashi.  
{ Patented, June 4, 1901.

Fig. 6.

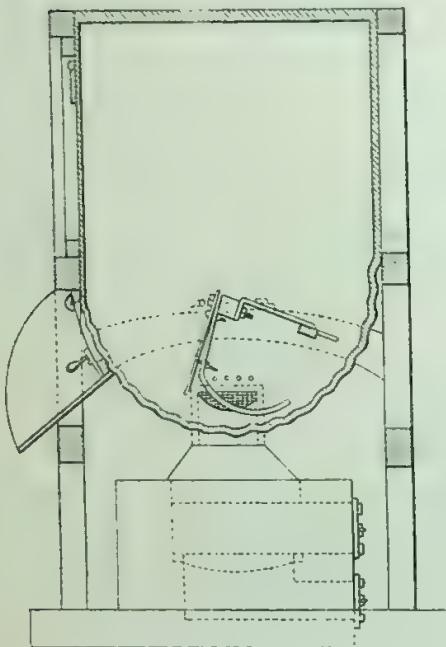
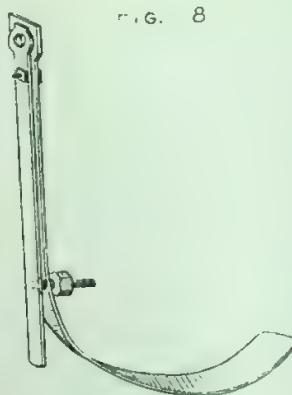
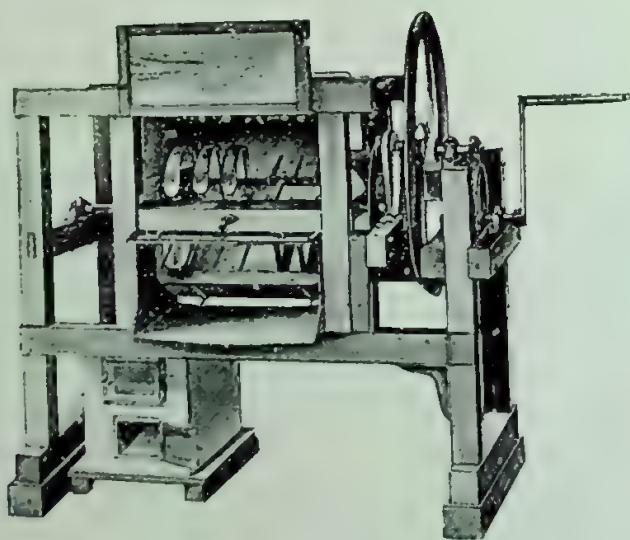


Fig. 8



This rolling machine is simply an improvement of the one mentioned above, and so no special explanation seems to be called for. Its construction is shown by Figs. 6-8. The principal points of improvement lie in the construction of the rolling blades and the mode of fixing them.

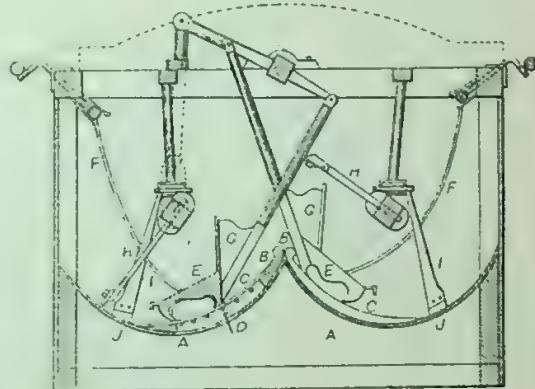
Fig. 7.



Patentee, H. Mochidzuki.  
Patent No. 2718 {  
Patented, April 18, 1896.

As shown in Fig. 9, this rolling machine consists of a pair of semi-cylindrical pans (A A) joined together lengthwise. Each pan is provided with a projecting brim and a little raised above the pan are placed rolling tables (C C.....) alternately on each pan. The rolling tables are made of strong cloth, and underneath each rolling table the pan is pierced with holes (D D.....) for the passage of the heated air from below. Over each rolling table moves a rolling block (E E.....), pressed down by a spring (F F.....), the rolling surface of which is scooped in double concaves. To the upper side of each rolling block is fixed a hopper (G G.....) into which scattered leaves are thrown by shoveling pieces (H H.....). Near the lower end of each rolling table there move backward and forward sweeping pieces (I I.....) with brush ends (J J.....) which drive scattered leaves to and fro so as to be caught by the shoveling pieces. This machine is of great practical value.

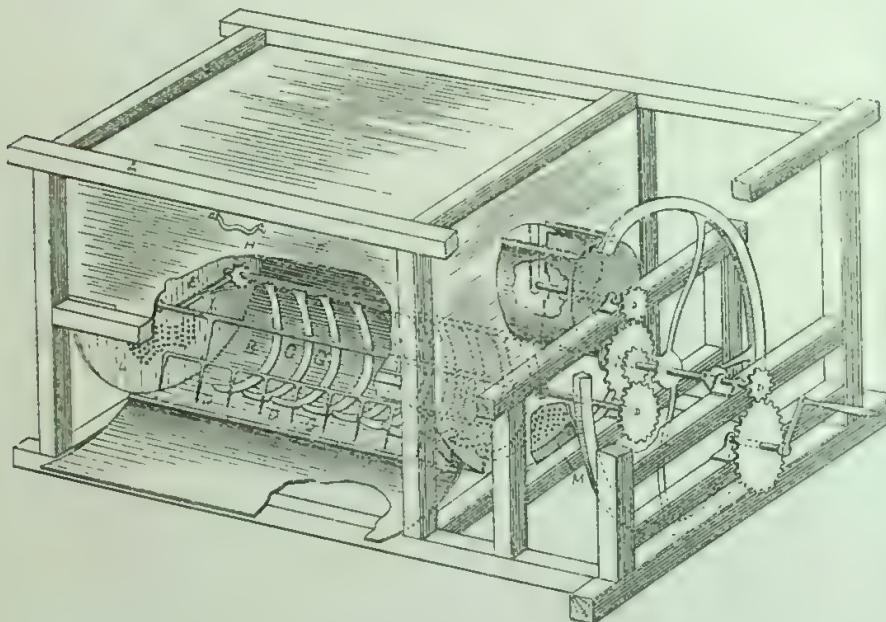
FIG. 9.



Patentee, S. Kamo.  
Patent No. 5230 {  
Patented, March 6, 1902.

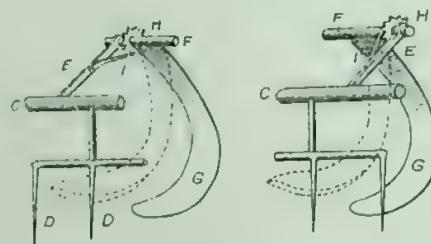
As shown in Figs. 10 and 11, this rolling machine consists of a square wooden frame (A) with a semi-cylindrical rolling pan (B), the inner surface

FIG. 10.



of which is corrugated. Revolving within this pan is an axle (C) to which are attached comb-like teeth (D D.....), and two arm pieces (E E) the free ends of which are each pierced with a hole. In the holes of these arm pieces is loosely inserted a rod (F) to which are attached rolling blades (G G.....). Adjacent to the two arm pieces are two ratchet wheels (H H) one at each end, with teeth turned in different directions, and each of these wheels is caught by a pawl (I), thus holding the rolling blades fast in any desired position. The lower part of the left side of the frame is pierced with a number of small holes (L L.....) through which heated air is blown

FIG. 11.



in. On the right side the frame has double sides with holes (M M.....) on the lower part of the inner side for the heated air to pass out, and a ventilating apparatus at the upper part of the outer side. This machine, not only economizes labor, but has the further advantages that the rolling blades can be adjusted to any desired inclination, that the leaves do not form into balls, and that they are curled up evenly, without losing either their flavor or their color.

### 3. Machines for Second Rolling.

Patent No. 3800 { Patentee, K. Usui,  
{ Patented, Oct. 28, 1899.

This rolling machine consists of a semi-cylindrical pan (A) with a slightly raised and corrugated rolling surface (B), and rolling blocks (C C) attached to a shaft (D), which have curved and corrugated surfaces and swing over the rolling surfaces of the pan. Attached to another shaft (E), which is moved by means of toothed wheels together with the shaft (D), are shovels (G G) and sweepers (H H.....); the former to drive tea leaves between the two rolling surfaces, the latter, moving between the rolling surfaces of the pan, to sweep away scattered leaves and to make them fall over the rolling surfaces.

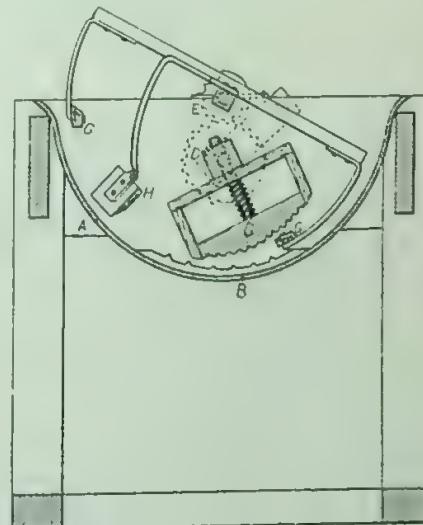


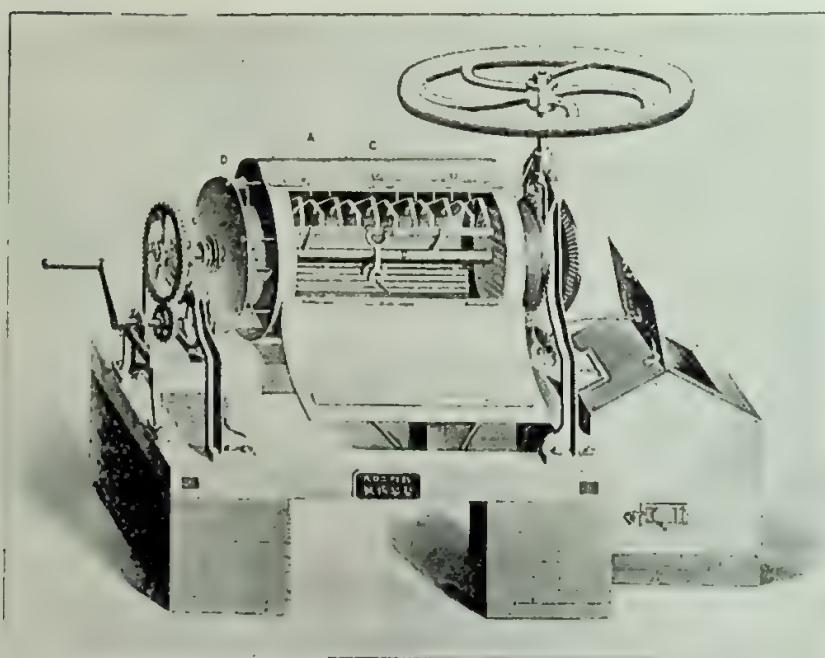
FIG. 12.

Patent No. 4026, — Patentee, M. Futakuchi.  
Patented, March 27, 1900.

FIG. 13.



FIG. 14.



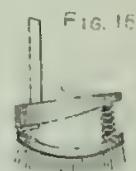
This machine consists of a cylindrical pan (A) which is revolved by suitable motive power. Within the cylinder and attached to a shaft (B) are numbers of rolling blades (C C.....) which can be elevated or lowered by means of springs. The cylinder and the rolling blades revolve on the same axis and at the same speed, but in opposite directions. The heated air from the furnace below is introduced into the cylinder at one end of the axis, and escapes by means of a fan (D) fixed at the other end. The rolling blades and the corrugated rolling surface of the cylinder are made to rub each other at two places in each revolution. In this machine the draft of heated air passes through the leaves rapidly and at the same time the leaves are well rolled.

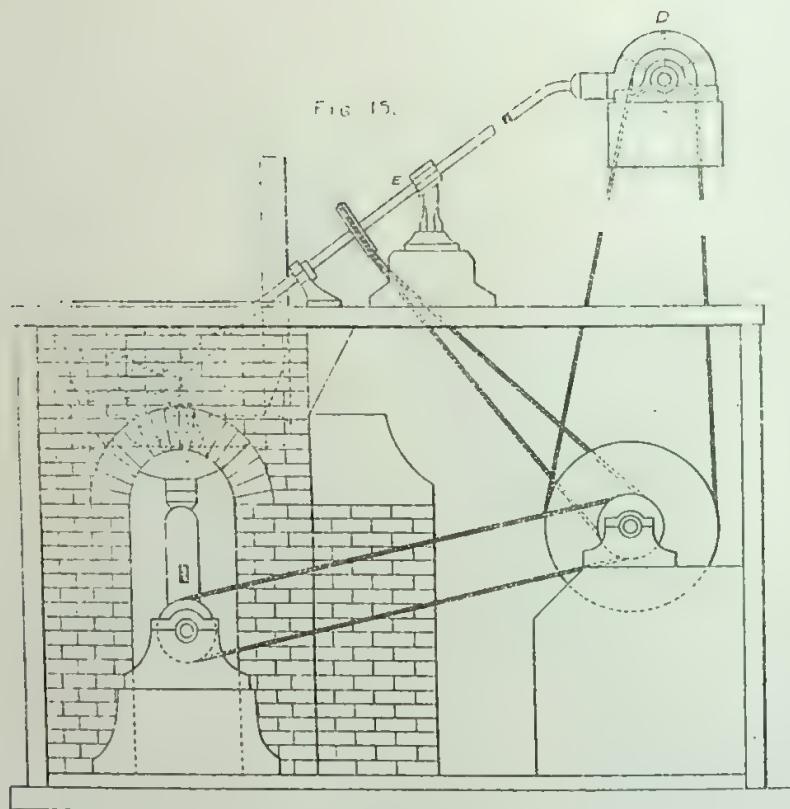
#### 4. Second Rolling and Firing Machines.

Some machines for second rolling are also used, by adjusting a part of the mechanism, for firing tea, so that it may be convenient to describe them together as rolling and firing machines.

Patent No. 3451 { Patentee, U. Ōishi.  
                          { Patented, April 28, 1899.

As may be seen from Figs. 15 and 16, this machine consists of a semi-spherical pan (A) which revolves horizontally. Into the centre of the pan is introduced one end of a rod (B) obliquely fixed, and at the end of the rod are attached wire brushes (C C.....). The rod is hollow, and while it turns round and rolls the tea in the pan with the brushes, a draft of air is sent to the pan through it by means of a fan (D).





Patentee, K. Otani.  
Patent No. 6504 { Patented, Aug. 6, 1903.

This drying machine (Figs. 17-19) consists of a circular pan (A) into which is introduced a horizontal axis (B) with elliptical and bow-shaped stirring hands (C C....., D D.....). By revolving these stirring hands, the tea leaves are well stirred and become dry without allowing the leaves to uncurl or to pulverize.

FIG. 17

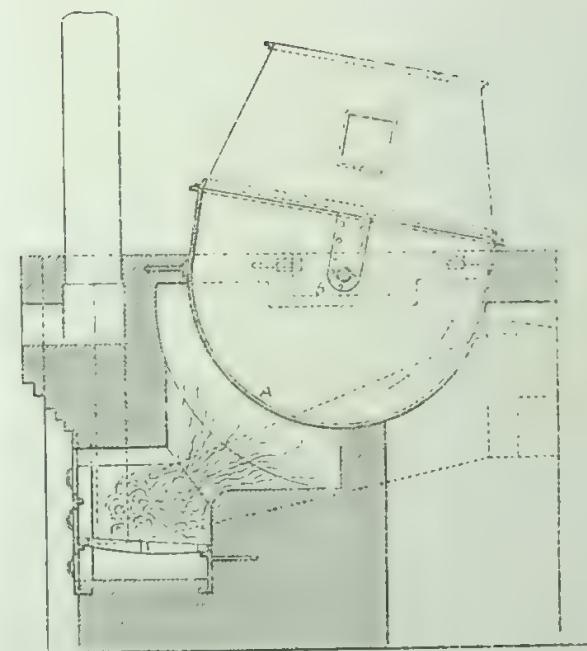
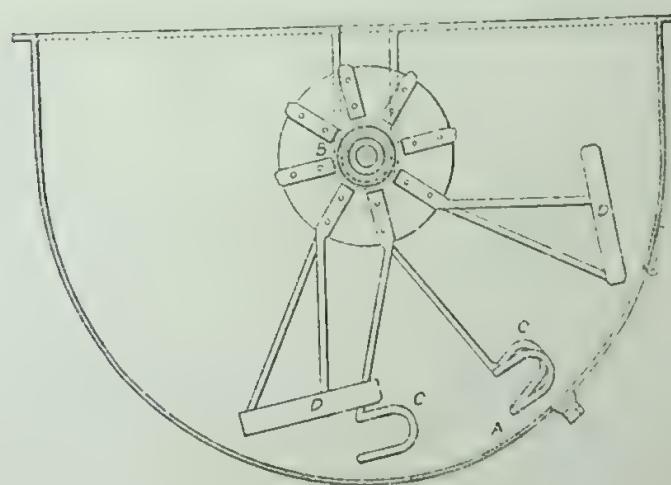
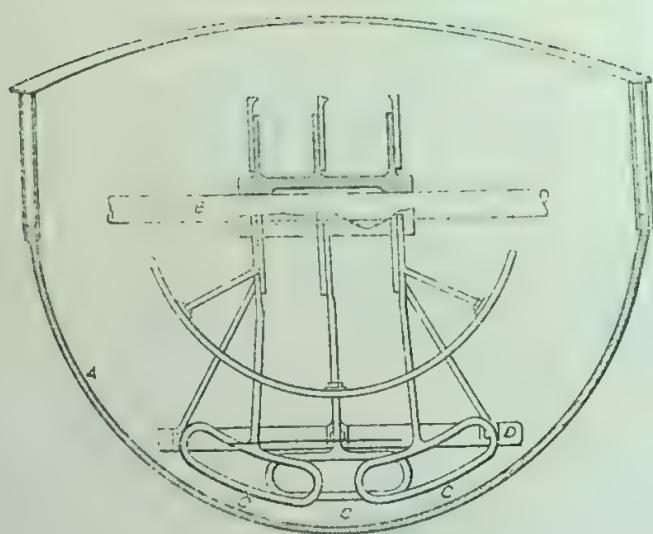


FIG. 18.



(FIG. 18.)



## CHAPTER II.

### RAW SILK MANUFACTURING MACHINES.

Silk has been manufactured in Japan from ancient times by a manual method known as "Zakuri." This method, more or less improved in recent times, is still very widely used. Fig. 20 shows a machine adapted to the use of this method. The machine is placed before a cocoon boiling basin, and the required number of filaments is collected and passed through a drawing button (A), then through a guide (B) at the end of a rod (C) which gives the strand a reciprocating motion, and is then wound on a reel which turns on an axle (D). This method is very simple and is well adapted to use in farm-houses. There being, however, no more room for improvement, it is not of a kind to survive long in these days of mechanical manipulation. For some years the tendency to use machines has been becoming stronger, and stronger, and in a little more than ten years many kinds of machines have been introduced from Europe. At the same time many inventions and improvements have been made in Japan.

The inventions and improvements made and patented in connection with silk manufacture, consist, besides contrivances for preparatory operations, such as machines for taking off floss, for selecting cocoons, etc., of automatic machines for the manipulation of raw silk, adapted for use in factories on a large scale. Arranged in the order of the operations performed by them, they are:—

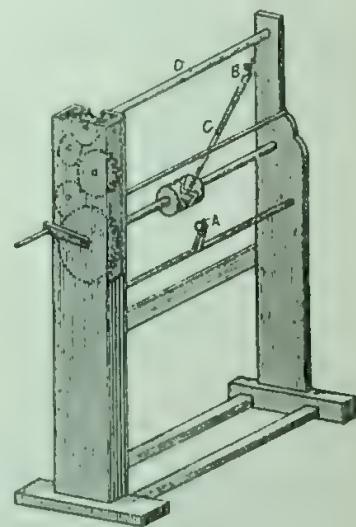


FIG. 20.

1. Contrivance for taking off floss.
2. Cocoon selecting apparatus.
3. Cocoon boiling basin.
4. Reeling basin.
5. Knot smoothing device.
6. Devices for joining a new filament (Jette-bouts).
7. Reciprocating appliances.
8. Machines for "Zakuri."
9. Silk manufacturing machines.

Of these appliances those for smoothing knots, for joining filaments, for selecting cocoons, and the reel, show marked improvement. Machines for crossing strands in reeling, and automatic silk manufacturing machines, by which a uniform thickness of the strand is secured and labor economized, are worth notice. We shall give below descriptions of typical machines.

### 1. Apparatus for Selecting Cocoons.

Patent No. 3812 { Patentee, K. Sato.  
                          { Patented, Nov. 2, 1899.

This apparatus consists of a mirror (A) over which is fixed a frame (B) with vertical and transverse sections, each compartment being large enough for one cocoon to lie flat therein. The inner side of these partitions are all painted black. Under the frame is placed, so that it can be drawn out, a glass plate (C) painted black with the part corresponding to each compartment left transparent in the shape of a cocoon. Over the frame there is another frame (D) which can be raised by hinges to facilitate the putting of cocoons into the compartments. This frame has transverse pieces (E, E.....) which cover parts of the compartments, leaving enough space to insert cocoons in an erect position.

On examining the cocoons by the light reflected from the mirror below, the color of the chrysalis is very easily discerned, the reflected light from cocoons lying near being intercepted by the partitions.

FIG. 21.

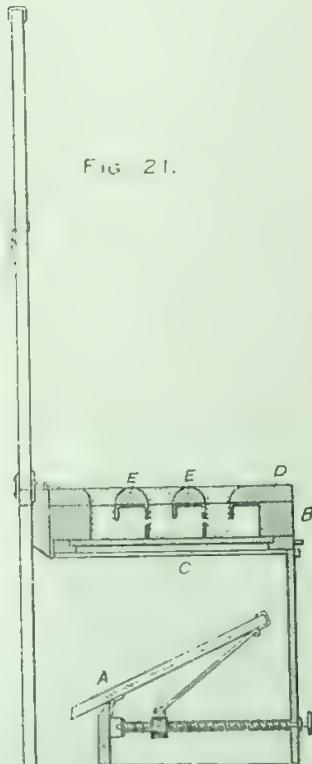
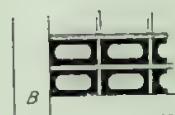


FIG. 22.



Patent No. 4168 { Patentee, G. Kobayashi.  
Patented, July 9, 1900

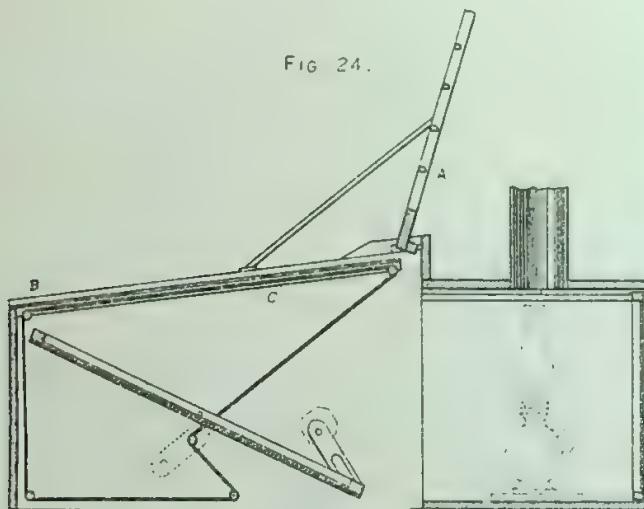
FIG. 23.



This apparatus is an improvement of the one mentioned above. The frame (A) with partitions is fixed by hinges so as to be raised, and the glass is replaced by a black board (B) containing holes in the shape of a cocoon. There is also under the board a sliding screen of black cloth (C).

In the former apparatus, after the cocoons in the compartments have been examined, the glass is drawn away and the cocoons are let fall over the mirror; but in the latter apparatus after the examination of the cocoons is over, the frame is raised and the cocoons are swept away, thus keeping the mirror surface free from dust. Moreover, in the latter apparatus the

FIG. 24.



screen is drawn away as each row of compartments is examined, thus the sight can be more easily concentrated.

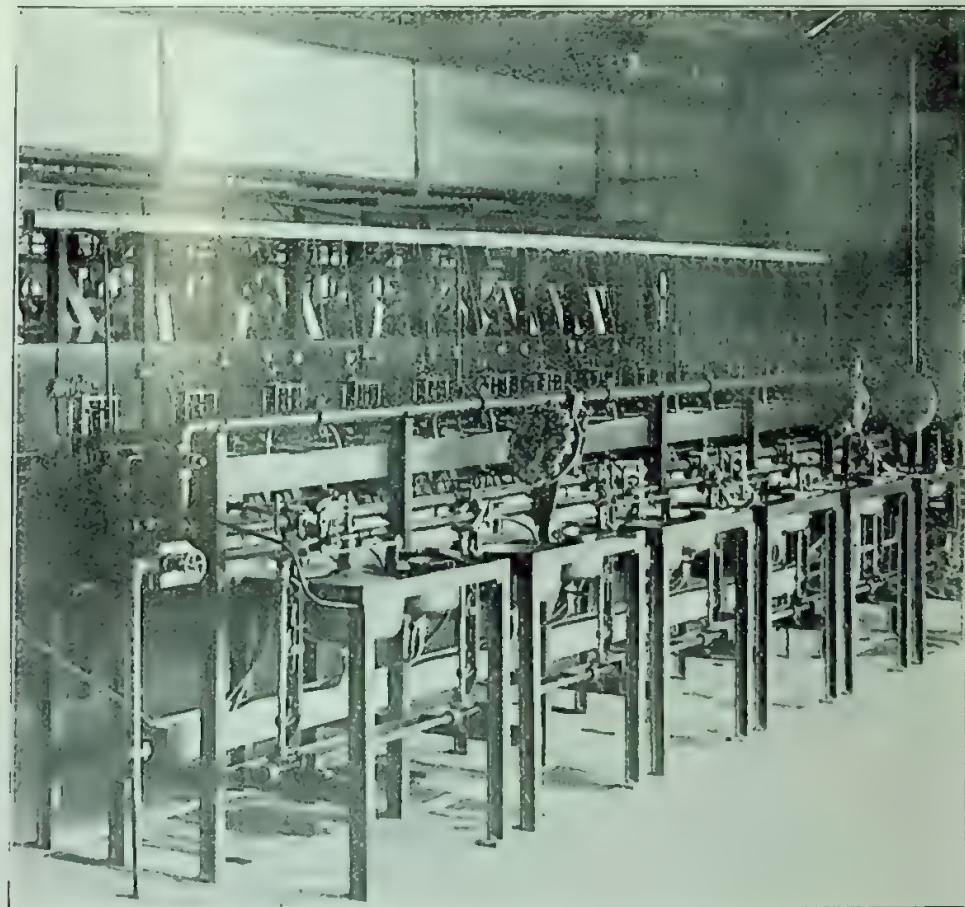
By the use of such an apparatus good and bad cocoons are distinguished by their colors, the chrysalis of the former showing a red color, and that of the latter a light blue. This apparatus can also be used at night with a lamp. With this apparatus a man can examine about nine bushels of cocoons in a day.

## 2. Raw Silk Manufacturing Machine.

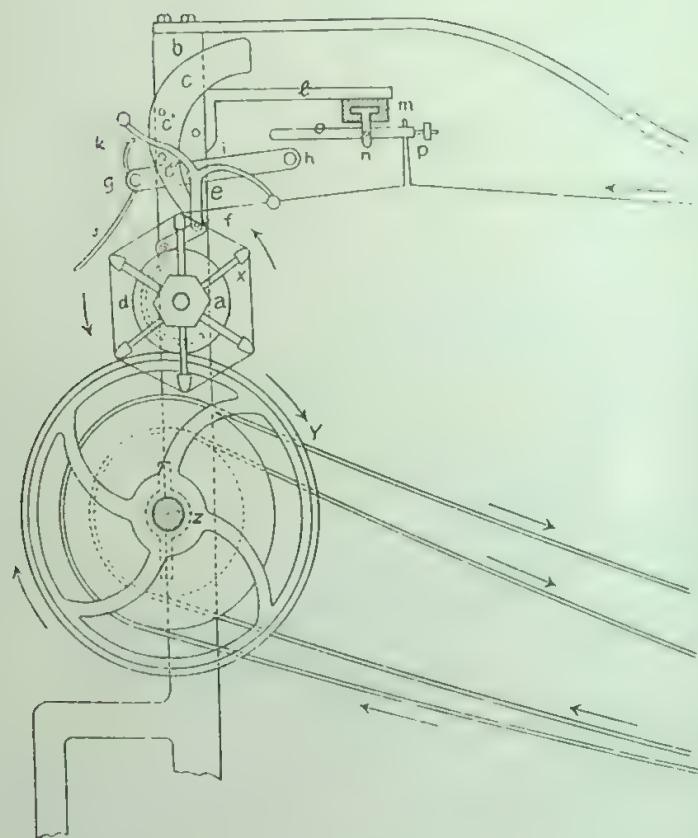
Patent No. 3309 { Patentee, B. Marunaka.  
                          { Patented, Jan. 6, 1899.

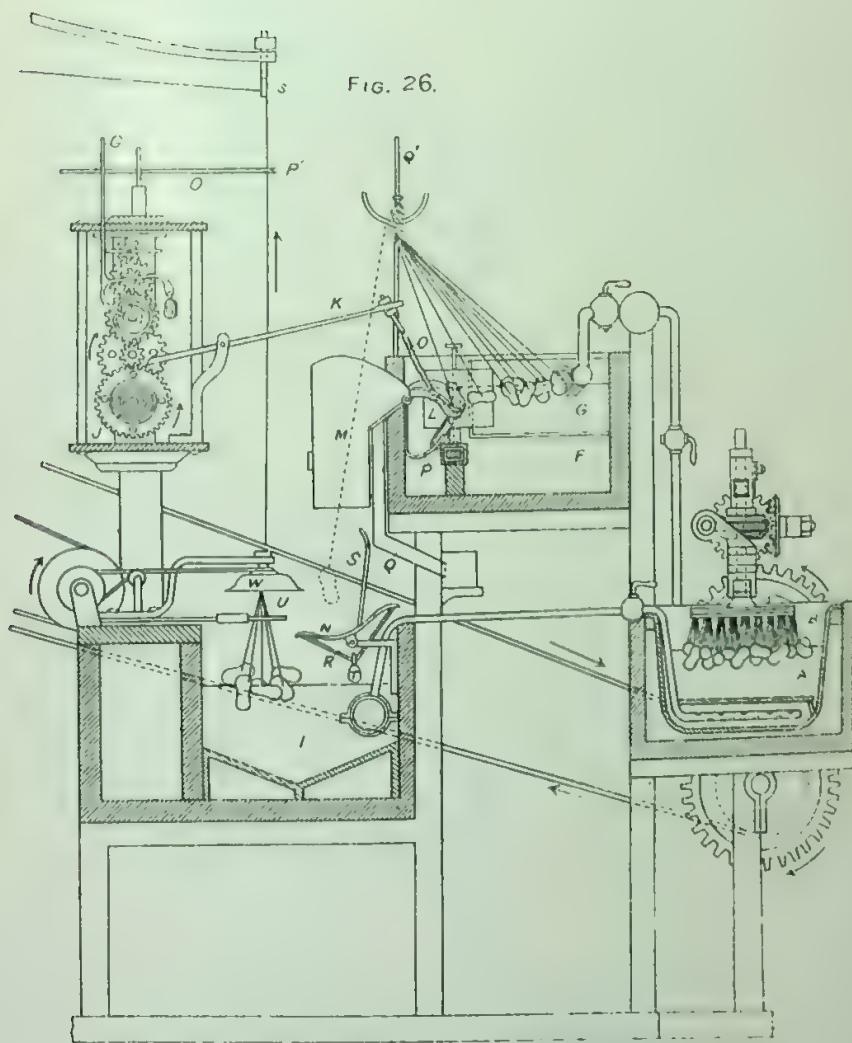
This machine consists of a basin for keeping cocoons of which filaments have been found, and appliances for beating, reeling, joining, and automatic stopping. It performs automatically almost all the operations of silk manufacturing. Fig. 25 is a general view of the machine.

FIG. 25.



The beating apparatus, as is shown in Figs. 26, 27, and 28, consists of a basin (A) over which a circular beating brush (B), made of a suitable material, revolves on the shaft (C) which is held by a block (D). On the block (D) are fixed a mechanism to rotate the shaft (C) and another



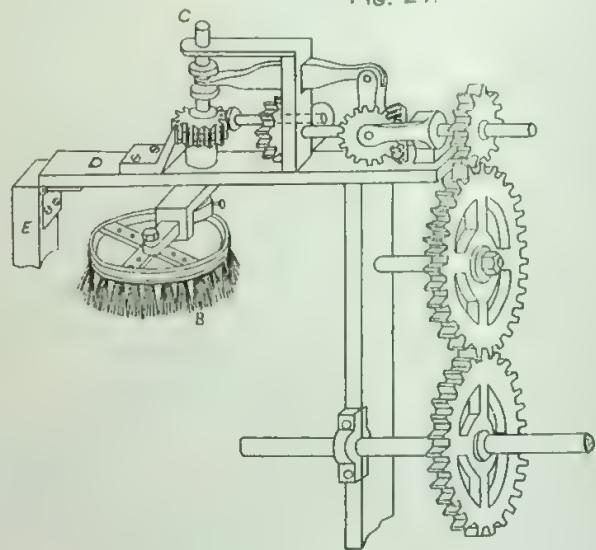


mechanism by which an up and down motion is transmitted to the beating brush (B). The block (D) is attached to a post (E) by a hinge, so that it can be raised up. The apparatus is furnished with another mechanism (not shown in the figures), by which the brush is made to stop automatically after a certain number of rotations.

The cocoons of which the filaments are caught in the beating basin, are then transferred to another basin (F), where they are kept till required. This is a rectangular box with partitions of thin curved metal plates (G, G.....) arranged as shown in Figs. 26 and 29. Each of the curved plates (G, G) is attached at its lower side to a collar which is fastened to a rod (H) by means of a set screw, so that the space between each pair of these metal plates can be adjusted at pleasure. The rod (H) is connected as shown in Fig. 29, with a mechanism which transmits to the rod and consequently to the thin plates (G, G) a shaking motion.

From this basin a cocoon is automatically transferred, when required, to a reeling basin (I). This mechanism consists of a pair of springs (J), each of which gives a regular hammering motion to each of two leavers (K, K), a pair of dippers (L, L), each of which ladles a cocoon out of the basin (F), two pipes (M, M) through which the ladled cocoon falls down, and two cocoon receivers (N, N) which receive the falling cocoons. A dipper (L) is attached to the part of the brim of the basin (F) where it is a little cut down, by means of a hinge, so that it can move up and down between a pair of thin plates (G, G), and the free end of the dipper is connected with one end of the lever (K) by means of a coiled spring (O), which while transmitting an upward motion to the dipper, avoids giving

FIG. 27.



it any sudden jerk. At the free end of each dipper are attached two wires (P, P) which curve under the dipper and are attached to the inner side of the basin (F) by hinges. Proximate to each dipper, on the outer side of the basin, is a water tube (Q) through which the water of the basin constantly passes out. Just under the pipe (M) is a cocoon receiver (N) which turns on a pivot (R), and has a wire (S) bent square attached to it, and underneath a small weight (T) which keeps it in a horizontal position.

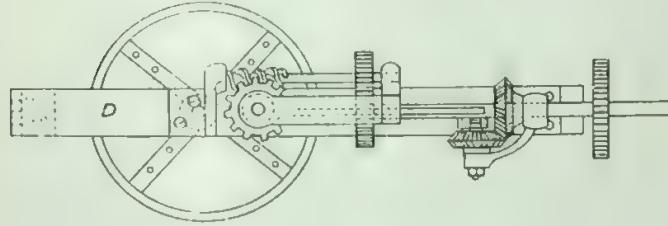
The mechanism for moving the lever (K) consists of levers, toothed-wheels, and springs. As is seen in Figs. 26 and 30, there are five axles (1),

(2), (3), (4), and (5), fixed horizontally.

To the axle (1) are attached a fan-fly (A') and a toothed-wheel (B'); to the axle (2) are attached toothed-

wheels (C') and (C''); to the axle (3) are attached toothed-wheels (D') and (D'') and a wheel (D''') which has a notch on it; to the axle (4) are attached toothed-wheels (E') and (E''), the former having four or any desired number of pins (F') by which the wheel (E') on turning round gives a hammering motion to the lever (K); and to the axle (5) is fixed a spring (J). The notch of the wheel (D''') is caught by the lower end of the rod (G'), so as to stop the wheel after every revolution. The rod (G') is fitted, near its lower end, with an arm (H'), which has a weight (I') at the end and turns on a pin (J'). The rods (G') project above the top board (L') of the casing, and on the under surface of this board (L') are fixed catches, which hold the fan-flies (A'). On the top board (L'), movable on a pivot right and left, is a needle (O'), one end of which expands into a shape like an opened fan and the other end of which is furnished with a hook (P'). Through this hook (P') passes the crossed strand as they are reeled. Now if these crossed strands move, from any cause, right or left, it will be felt by the needle and its fan-like expansion will push one or the other of the rods (G') which will in its turn push the catch, thus freeing the fan-fly (A') and making the axle (3) turn one revolution. The motion will also

FIG. 28.

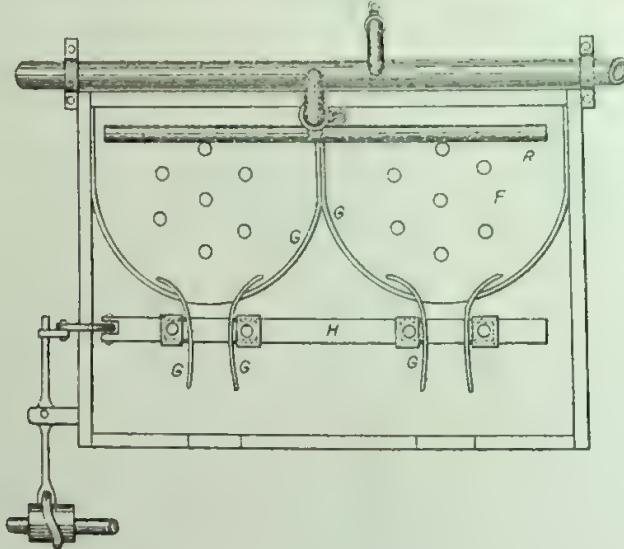


be transmitted to the axle (4) and a pin (F') will push down the end of the lever (K).

The reeling part consists of a reeler's basins (I), knot-smoothing device (U), drawing button (W), and reels (X), the knot-smoothing apparatus used with this machine being Patent No. 690.

As is shown in Fig. 26, the wheel (Y) fixed on the shaft (Z) moves wheel (a) by friction and thus the reels (X) rotate. On the inner side of

FIG. 29.



a post (b), there is a curved weight (c) which turns on a pivot (c') and the lower end of which is joined by a link to a hook (d), which is capable of up and down motion. (e) is an arm piece which also turns on the pivot (f), (g h) is a frame which turns on pivots (i). On a cross bar (g) of this frame are attached, so as to be raised or lowered, two small boards (jj), one over each reel, and just under an arm of the arm piece (e) on the same cross bar is attached a small metal piece (k). Attached to the arms (l) of the posts (b) are blocks (m) through which a reciprocating rod (n) shuttles right and left. Under this reciprocating rod are fixed, turning on pivots, two rods (o, o), one end of each carrying a hook (p); and the other end lying just above the cross rod (h). Now this rod (n) is so adjusted as naturally to push down the cross bar (h), it being made heavier on that side, but is kept

in a horizontal position by the tension of the strand which passes through the hook (p).

Such being the construction of this machine, we shall next explain how it is worked.

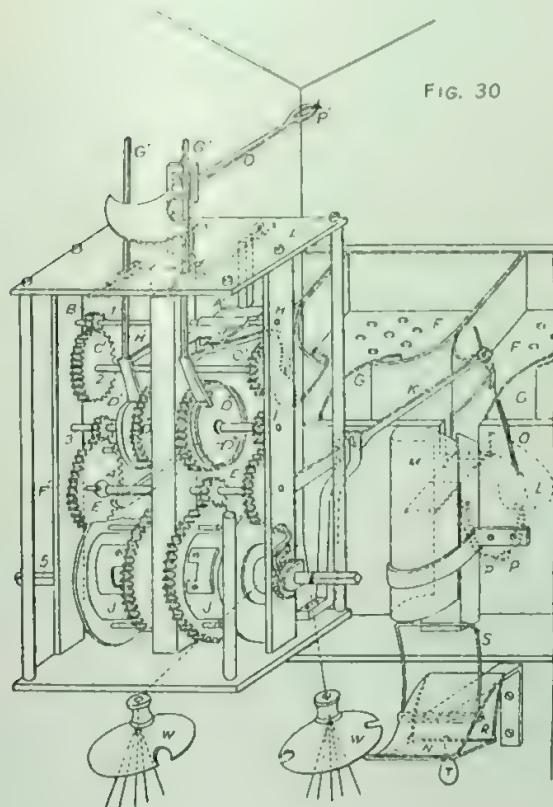
Cocoons are first boiled in the beating pan (A) to a proper degree. Then the beating apparatus is lowered, and the brush commences to rotate, at the same time also moving up and down. Thus the brush gently rubs the cocoons and without injuring them catches filaments. After a certain

number of rotation the brush stops by itself, and the beaten cocoons are removed and put in the basin (F), the filaments caught being twined on sticks (q') attached to the brim of the basin.

To the basin (F) hot water being continuously let in through numerous holes in the pipe (R) and let out through the tubes (Q), there is caused a constant current in each compartment towards the mouth, and the floating cocoons drift in that direction. The foremost one goes over the dipper, the shaking motion of the partitions (G, G) facilitating it.

When this cocoon is skimmed away the next one is ready to take its place.

The required number of beaten cocoons is now placed in each reeling basin, the filaments are passed through the knot-smoothing comb, and collected into a strand by the drawing button. Then the two strands are crossed, which are again separated after passing through the hook (P) of



the needle (O'). Then each strand passes through the guide (s) and the hook (p), and is wound on the reels. Now each consisting of an equal number of filaments, the tension of the two strands will be equal. And if one filament of either strand is separated, this equilibrium of tension will be broken, and the crossed part will be drawn towards the stronger tension. This will be felt by the needle, which releasing the fly and freeing the spring, will cause the dipper to throw down a cocoon on the receiver. The receiver on receiving the cocoon will swing and the wire (S) will push the filament against the drawing button, which has sharp-edged notches and turns very swiftly. Then one of the notches will catch the filament, entwine it around the strand and cut it. Thus the broken filament is replaced and the equilibrium of tension will be restored.

As is shown in Fig. 26 the reels are also furnished with a mechanism to stop the motion, if any one of the strands breaks, or when the required quantity of silk is wound. The mechanism acts as follows. When one of the strands breaks, the rod (o), which is kept in a horizontal position by the tension of the strand, will incline and consequently push down the cross bar (h). Thus the cross bar (g) will go up and the metal piece (k) will push up the arm piece (e), making it fall down. The arm piece on coming down will strike the pin (c') of the weight (c), and the weight will also fall down; the hook (d) will be pushed up, will carry up the reels, and the rotation of the reels will be stopped. When the desired quantity of silk is wound, the reels will also stop, the pieces (j j) being pushed up by the silk already wound.

### 3. Filament Joining Devices.

Patent No. 1728 { Patentee, Y. Tsuda.  
{ Patented, Oct. 18, 1892.

This device is based on the twisting system and consists of a tube (A), to the lower end of which is attached a circular cutting edge (B). Revolving over this tube is fixed a metal plate (C) with deep notches (D) on the edge. To use this machine, pass a fine wire through the tube from

above, draw up the required number of filaments, and wind the strand on a reel. Now if any one of the filaments breaks or runs out, bring a new filament between the fingers

close to the revolving disk (c). The filament will be caught by one of the notches, wound around the strand, and reeled off, the end being at the same time cut off by the circular edge. The advantage of this machine

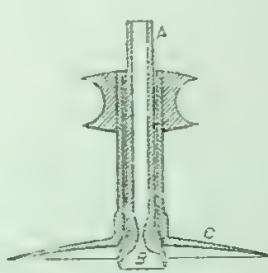
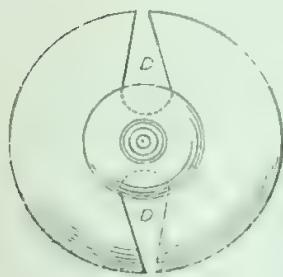


FIG. 31.

is that a new filament is cut very near where it is joined to the strand, thus making the knot as small as possible.

Patent No. 2772 { Patentee, T. Kamiya  
{ Patented, Aug. 1, 1896

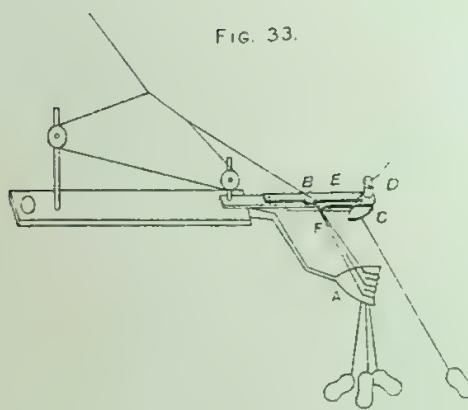
This device is based on the contact system, and works as follows. Take the required number of filaments, and put one of them in each of the teeth of the comb (A), collect them into a strand, and pass it through the knot smoother (B), and after crossing it as in ordinary travel spinning, wind it on the reel. Now if any filament breaks or runs out, take a new filament, put it against the hook (C) and wind its end to the knob (D). Then draw in the travelling board (E) with the knob (D). The cutting edge (F) attached to the board will cut the new filament, which, however, will remain stuck to the hook on account of its being wet. Draw in the board farther, till the strand comes into contact with the hook, and the new filament will be reeled off

FIG. 32.



together with the other. If the board is now freed, it will return to its original position by means of a spring.

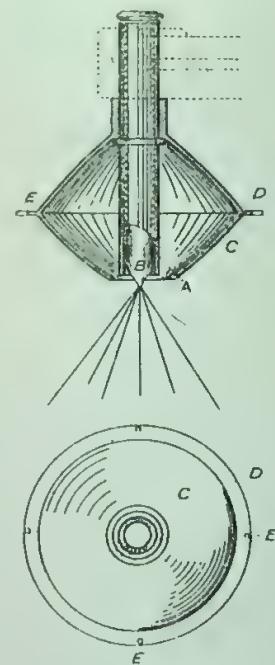
FIG. 33.



Patent No. 2937. | Patentee, N. Minorigawa.  
| Patented, Aug. 30, 1897.

This machine belongs to the twisting system, and consists of a tube (A) within which is fixed a glass pipe (B), the lower end of which is drawn out into a very small eyelet. Over the tube is fitted so as to revolve a filament winder (C), the lower half of which has a shape something like an upturned cone. The cone has a brim (D) around its base with several notches (E E ....) on it. The strand is passed through the eyelet and then through a knot-smoother and wound on the reel. To join a new filament to the strand, bring the filament close to the brim. One of the notches on the brim will catch it and the winder will wind it around the strand and the new filament will be reeled off together with the other filaments. The end of the new filament, which sticks to the surface of the cone, will get gradually wound, too, around the strand.

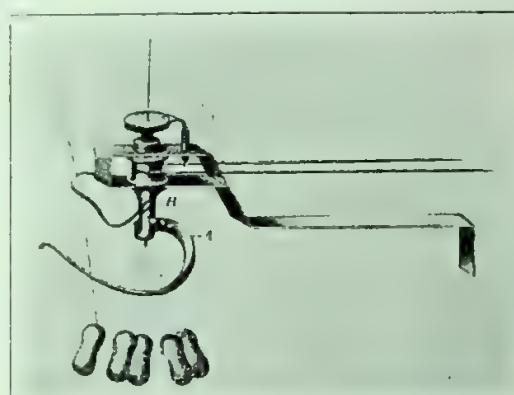
FIG. 34.



Patent No. 4120 { Patentee, K. Wada.  
Patented, June 11, 1900.

This device also is based on the contact system, and consists of a spiral arm (A) attached to the lower end of a tube (B) with a drawing eyelet. The tube revolves, and the spiral arm is furnished with a cutting

FIG. 35.



edge near its juncture with the tube. The required number of filaments is passed through the eyelet and then wound on the reel. If a new filament is required, it is brought near the machine to the position shown in the figure by a dotted line. Then the revolving arm will drive it towards the drawing eyelet, the cutting edge at the root of the arm will cut the end, and the new filament will be reeled off encircled by the other filaments. Thus filament can be joined very easily and without producing any knot.

#### 4. Crossing Device.

Patent No. 5194 { Patentee, N. Minorigawa.  
Patented, Feb. 18, 1902

This device can be used both for travel and chambon spinning. As is shown in Figs. 36 and 37, it consists of a small toothed wheel (A) with a hole at the centre and a slit to pass the strand into the central hole, two thin metal posts (B, B) fixed to the wheel, and a gearing to move the

wheel. How this machine is worked will appear from an examination of the figure.

FIG. 37.

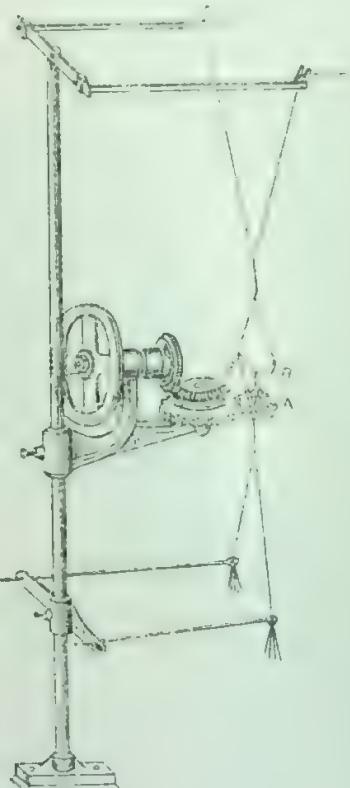
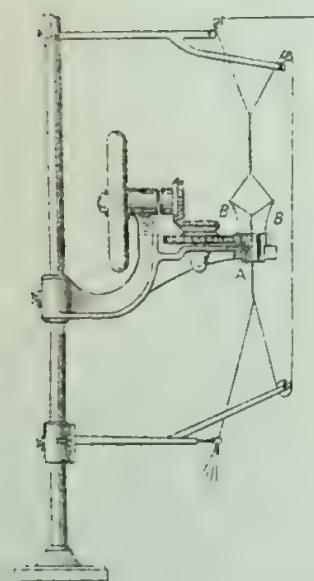


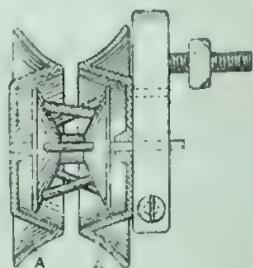
FIG. 36



### 5. Guide Pulleys.

Patent No. 3773 { Patentee, N. Minorigawa.  
Patented, Oct. 12, 1899.

FIG. 38.

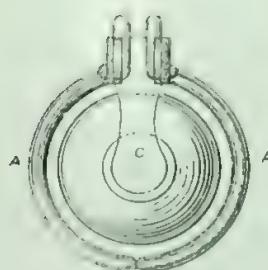
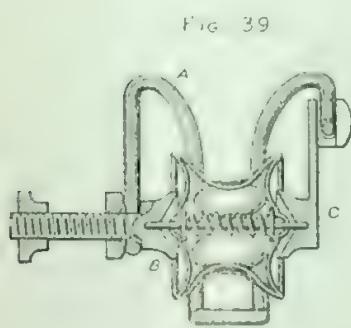


This machine consists of a common guiding pulley, each side of which is fitted with a circular guard (A). These guards gradually open towards the brim; thus a strand can easily be put on the groove of the pulley, at the same time preventing the strand from getting out of it and entwining around the axle.

Patent No. 4956 { Patentee, B. Wada.  
Patented, Nov. 27, 1901.

This guide pulley consists of a pulley, the axle bearings of which are held by a guard made of two wires (A, A). On one side the ends of the

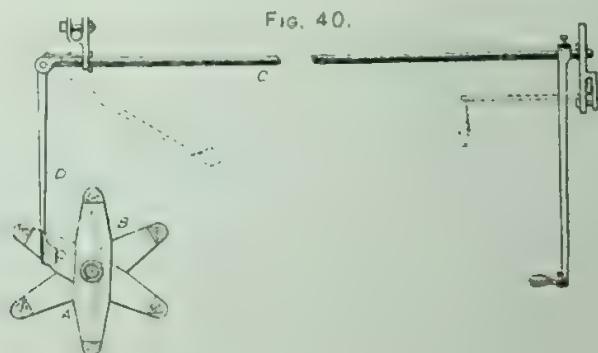
two wires (A, A) are attached to one axle bearing (B), then the wires curve downward in opposite directions along one rim of the pulley till they meet, then upward along the other rim, and the ends of the wires on this side hold the other axle bearing (C). The pulley is made of aluminium with depressions all along the groove, and is held fast to the axle by means of a coiled spring. This guide pulley is so constructed that it can be fixed, taken out, or cleaned, very easily, and it gives an even tension to the strands crossed. There are also other advantages.



## 6. Reeling Machines.

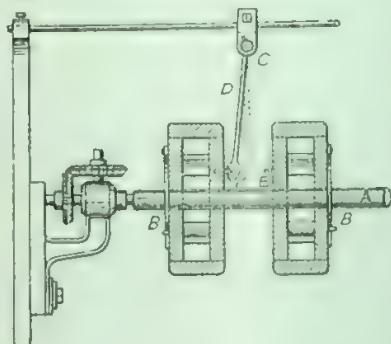
Patent No. 3627 { Patentee, N. Minorigawa.  
Patented, July 1, 1899.

This is a contrivance to stop one of the numerous reels turning on the same shaft, without hindering the others. The shaft (A) is grooved



round at proper intervals, and to each of these grooves is fitted a spring (B) fixed to each reel so as to hold the reel fast to the shaft by the pressing force of the spring. Between every couple of the reels hangs a rod (C), which being turned to the right or left will catch by its arm (D) the pin (E) of one reel or the other, thus stopping the motion of that reel only.

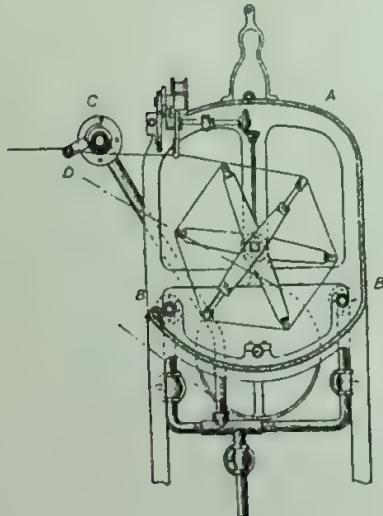
FIG. 41.



Patent No. 4109 { Patentee, N. Minorigawa.  
! Patented, May 25, 1900.

This machine is so constructed as to do the work of reeling and re-reeling silk at once direct from the cocoon. The reel is contained in a casing (A) open only on the front, and within the casing are passed steam pipes (B, B). There is another steam pipe (C) on the front of the casing with a smooth friction surface under it. Parallel to this steam pipe is another friction rod (D) which rises up to its proper position when the reel revolves, and falls down instantly when the reel stops turning. Not only does this machine heat the silk within a casing, as in other machines, but it makes the strand pass over a heated friction surface before it is reeled, thus heightening its gloss and at the same time making it perfectly dry.

FIG. 42.



## CHAPTER III.

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### MATTING WEAVING MACHINES.

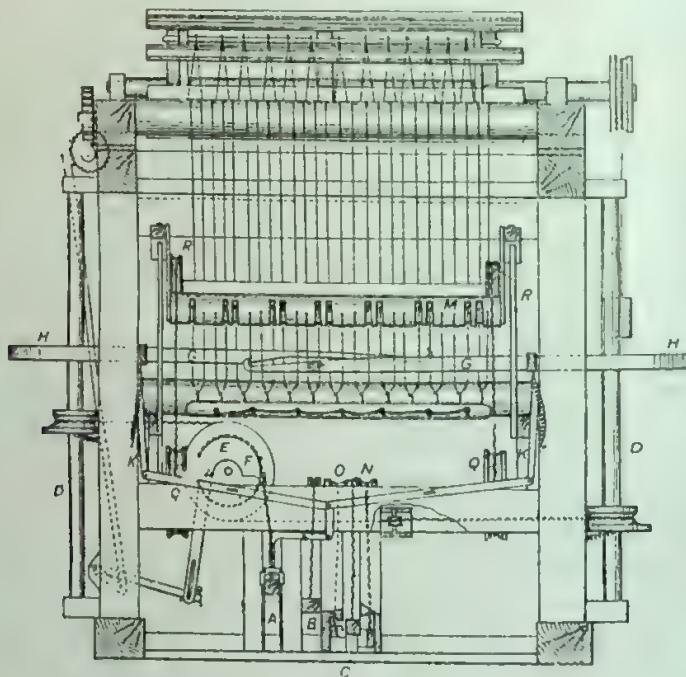
The manufacture of matting has been practiced in Japan from very ancient times. The machine used in the manufacture is a very simple one, and is something like a common hand loom fixed in a vertical position. The warp is of hempen cord and the west of rushes, and thus matting is weaved. The machine differs from a common loom in this, that it has no reed nor heddles, but a batten called "Kote" takes their places. This "Kote" is a long, narrow but thick piece of wood, with a row of holes pierced through it. The holes are of two kinds; one kind is a small hole on the upper surface of the "Kote," but gradually expands towards the lower surface into a lateral slit, the other kind is just the reverse of the former, being a small hole on the lower surface but expanding towards the upper. These two kinds of holes are arranged alternately, and the warp is passed through them. Now if the "Kote" is raised up and inclined in one direction a shed will be formed. After inserting a rush the "Kote" is lowered and battens it as with reed. The "Kote" is raised, is inclined in the other direction, and another shed is formed. Another rush is inserted and the "Kote" battens as before. This kind of machine has been long in use, but as it requires too much labor, many improvements have recently been devised and patented. Of these improved machines there are two kinds, those which use a "Kote" and those which use reeds and heddles. The next advance was in the construction of machines for weaving fancy matting. These latter are transformations of a dobby, with improvements so as to suit them for weaving matting. Of these also many have been patented.

### 1. Machines with the "Kote."

Patent No. 2435 { Patentees, K. Namba, G. Takabatake, S. Nasu.  
Patented, Dec. 28, 1894.

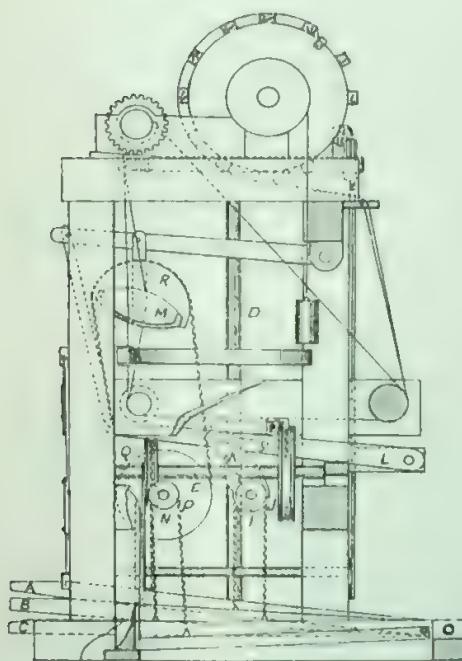
Of the three treadles (A), (B), and (C), (A) is to be pushed down with the right foot, and (B) and (C) are to be alternately trodden by the left foot. Now if the treadle (A) is pushed down the motion will be trans-

FIG. 43.



mitted to the two upright shafts (D, D), through the shaft (E) and the wheel (F), causing the two upright shafts to turn half way round. Thus the two inserting needles (G, G), which are made to spring back, will be retracted from between the warps, being wound on the semicircles (H, H) attached to the upright shafts (D, D). Then the treadle (C) is pressed down, first pushing it either to the right or the left. This turns the pulley (I) and the axle (J) and raises the cam (K). The cam will in turn raise the lever (L) and so the batten (M) will be raised. Now according as the treadle (C) is pushed to the right or left, motion is communicated either to the pulley (N) or the pulley (O) and the shaft (P) turns the pulleys

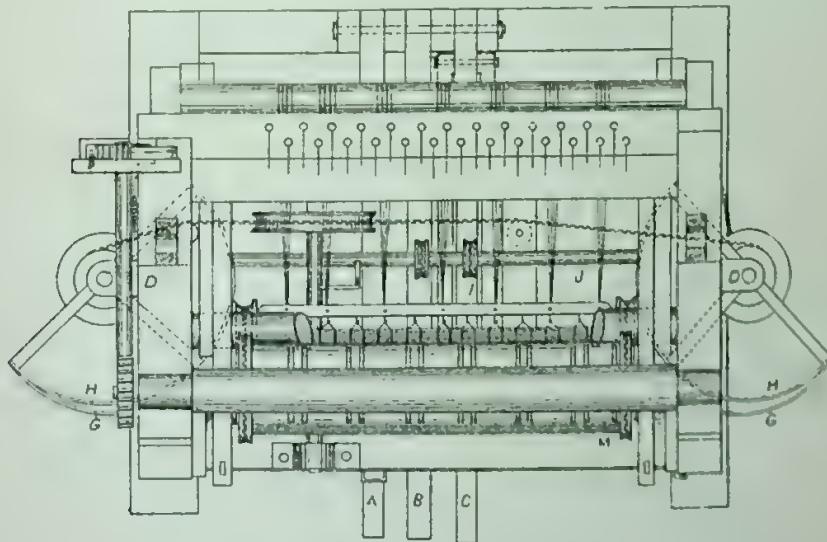
FIG. 44.



(Q, Q) in one direction or the other. These pulleys acting through the semicircles (R, R) attached to both ends of the batten, will cause the batten to incline forward or backward, thus forming the required shedding. When the shedding is formed, the treadle (A) is released, the upright shafts return to the original position, and the inserting needles are at the same time pushed between the warps. A rush is hooked at the end of each needle, the treadle (A) is again pressed down, the needles are drawn back and thus the rushes are inserted.

Then the treadle (B) is pushed down, turning the axle (J), and the cam (K) pushes down the pin (S), thus letting fall the batten. The movement of the treadles causes the various motions mentioned above, and many more.

FIG. 45.



The machine is also furnished with a contrivance for arranging the warps for a hundred pieces of matting at once and with the least amount of labor. The machine has also a contrivance for winding off the web as it is woven.

Patent No. 2815 { Patentee, K. Yagi.  
Patented, Dec. 14, 1896.

This is a contrivance to form the shed, taking advantage of the upward motion of the batten, by making it incline alternately forward and backward. As shown in Figs. 46 and 47, on the post (A) standing upright a pentagonal block (B) with its head, is fixed on the pivot (B') so as to swing backward and forward. Above this pentagonal block is a projection (C), which stops the motion of the block after it has swung backward or forward to a certain distance. The pentagonal block is pierced through with a hole, and within the hole is a small piece (D) turning on the pivot (E), with the weight (F) on its upper surface at the middle part. The piece (D) being in unstable equilibrium inclines in one direction or, the other, and thus it makes the block to swing slightly either backward or forward. The end of the batten (G) is furnished with an arm (H) standing upright. Now when the batten goes up the arm (H) will slide on one side of the pentagonal block, and will make the batten incline in one

FIG. 46

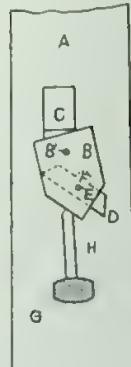
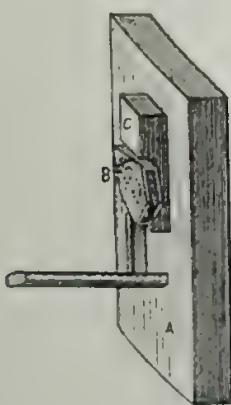


FIG. 47.



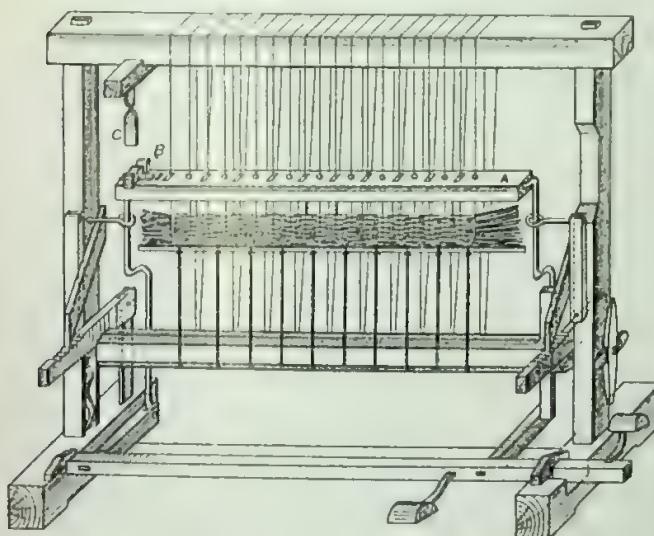
direction. At the same time the arm will push up the end of the piece (D) projecting beyond the pentagonal block, and will make it incline in the other direction. The centre of gravity of the pentagonal block being changed by this turning of the piece (D), its apex will swing in the other direction when the batten comes down. Thus when the arm on the batten rises it slides alternately on the two lower sides of the pentagon, so forming the required shedding.

Patent No. 5076. { Patentees, T. Hamada, T. Abe.  
{ Patented, Dec. 28, 1901.

This is a contrivance, like the one mentioned above, to form the shedding by the upward motion of the batten, by making it incline alternately backward and forward. As is seen in Fig. 48, at one end of the batten (A) a W shaped piece (B) is so fixed as to slide backward and forward a certain distance. From the upper beam of the

frame, corresponding to the W shaped piece (B), hangs a bar (C), which is loosely fixed so as to move backward and forward, and is helped to its vertical position by means of springs. Now when the batten goes up, the bar (C) will strike one side of the central projection of (B), slide down the side,

FIG. 48.



and push (B) in that direction, thus inclining the batten in the same direction. When the batten is drawn down the bar regains its vertical position and is ready, when the batten comes up the next time, to strike the other side of the central projection of (B), making it slide in the opposite direction and inclining the batten the other way. Thus the batten is inclined alternately to one side and the other, and the required sheds are formed.

## 2. Machines Using Heddles and a Reed.

Patent No. 4536 { Patentee, I. Matsuda,  
Patented, Jan. 25, 1901.

This machine consists of a special contrivance to form the shed. The machine is furnished, as in the common machine, with a shedding needle for every warp thread. These needles are divided into two sets of equal numbers, and are made to move alternately backward and forward, thus forming the sheds. These two sets of needles are fixed to separate frames, which are loosely attached to two arms (A, A). These two arms are again loosely connected with a rod (B) attached to a shaft (C), which is turned alternately half way round in one way and the other, by the motion transmitted from the treadle (D). To transmit this rocking motion to the shaft (C), a bottomless casing (E) is fitted within which the piece (F), connected with the treadle (D), moves up and down. Piercing the backward side of this casing is a travelling shaft (G), and within the casing a crank lever (H) is loosely connected at its lower end with the travelling shaft (G). On a pin at the upper end of the crank lever (H) loosely hangs a swinging piece (I). The travelling shaft (G) is pierced with two holes to admit the two arms (J, J') of a rocker which is also connected with the treadle (D). When the treadle is pushed down it carries the piece (F) with it and the swinging piece (I) then hangs vertically as is shown in the Fig. 50. When the treadle is released the piece (F) rises, and pushes the swinging piece (I) with the crank lever (H) to the position shown by the dotted lines. The travelling shaft (G) is thus pushed aside and consequently the arms (J, J') of the

FIG. 49.

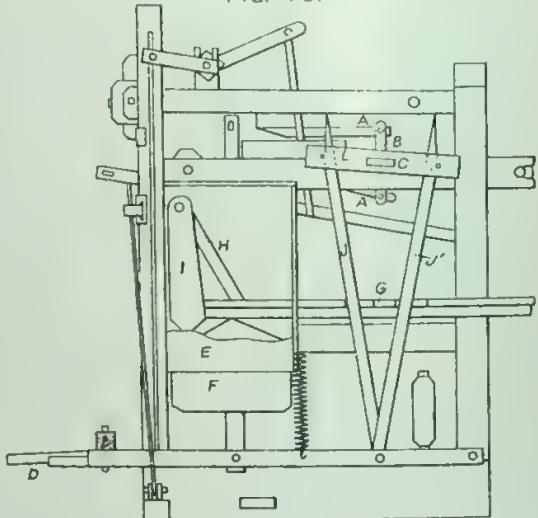
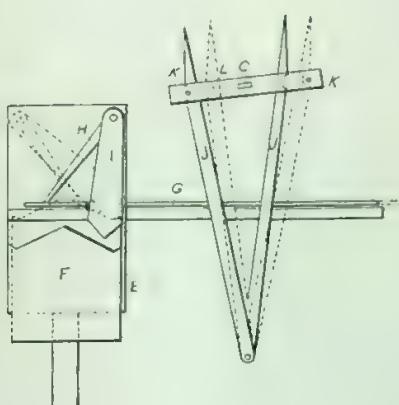


FIG. 50.



rocker take the positions shown by the dotted lines. In this position the notch of the arm (J) of the rocker catches a pin (K) at one end of the cross piece (L) attached to the rocking shaft (C). Now when the treadle is pushed down the swinging piece (I) will swing to the other side of the piece (F), hanging vertically from the pin at the end of the lever (H). At the same time the arm (J) will pull down the pin (K), thus making the shaft turn in that direction.

The next release of the treadle and the upward motion of the piece (F) will cause the crank lever to fall back to its former position, which will make the travelling shaft run forward. Then the arm (J') will engage the pin (K') and the pushing down of the treadle will cause the rocking shaft to rock to that side.

Patent No. 3522 { Pattee, F. Maejima.  
{ Patented, June 12, 1899.

This is a machine constructed like ordinary looms, but furnished with a contrivance for inserting the rushes. As is shown in Fig. 51, (A) is the inserting needle with a notched head, which runs between the warps, the motion being transmitted to it from the main shaft. Near the needle at one side of the loom is a long toothed wheel (B), and on the same axis a ratchet wheel (C) turned by a pawl (D), which is moved backward and forward by the motion transmitted from the main shaft. Now when a rush (E) is brought to the position shown in Fig. 51, the wheel, (B) will turn and bend the end of the rush down. The inserting needle which is in

FIG. 51.

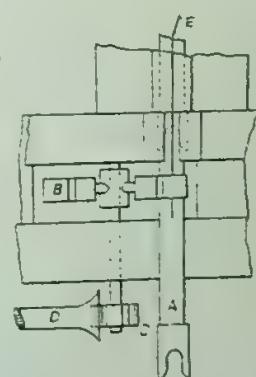
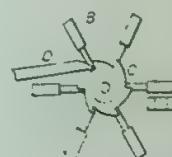
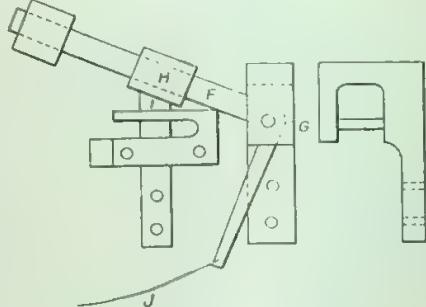


FIG. 52.



the position shown by dotted lines, will shoot between the warps with the rush bent on its notch. Fig. 53, is a contrivance to catch the rush thus inserted. (F) is a lever bent at a right angle, of which (G) is the pivot. It is fitted with a box (H) which has a row of small pins on its lower surface. The lever is raised by the spring (I) to the position shown in the figure, but when the inserting needle comes with a rush, it will strike the spring, freeing the lever from it. The lever falls and the pins on the box (H) will catch the rush. The inserting needle shoots back and the reed falls to push down the rush. Now one end of the lever is connected with the reed by a cord (J), and by the motion of the reed it will be again raised to its former position and upheld there by the spring (J), ready to catch a new rush.

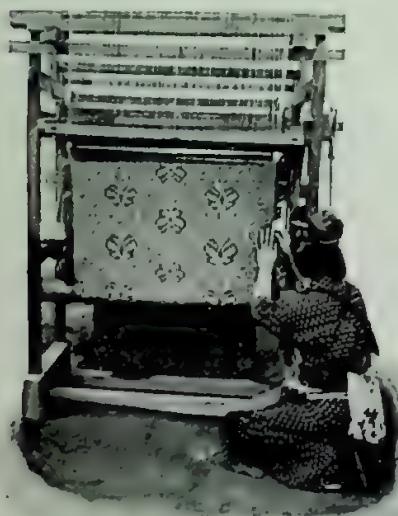
Fig. 53.



Patent No. 2843 { Patentee, Z. Akao.  
{ Patented, Feb. 17, 1897.

This is a contrivance to knit automatically the margins of matting. Formerly the margin was knit, after the matting was woven, by opening

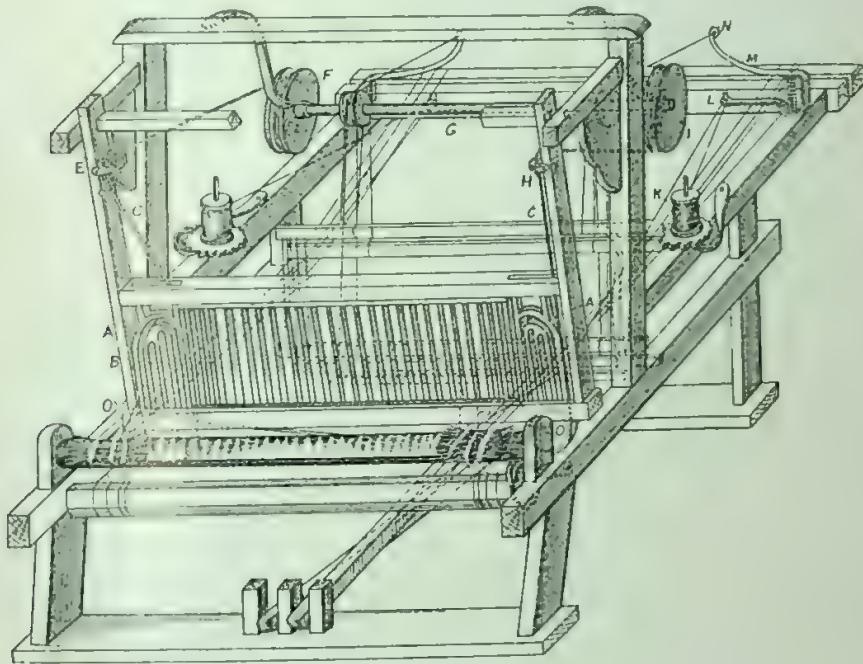
FIG. 54 a.



the web by hand near the edge and pushing in, and then taking out around the warp, the ends of the rushes, as shown in Fig. 54 a. The machine enables this work to be done with much greater facility. As shown in Figs. 54 and 55, at the end of a reed is fixed a cord guide (A, A), through which are passed warp threads, generally three in all. Around the outer partition (B) is a groove in which moves a band (C). To this band a short

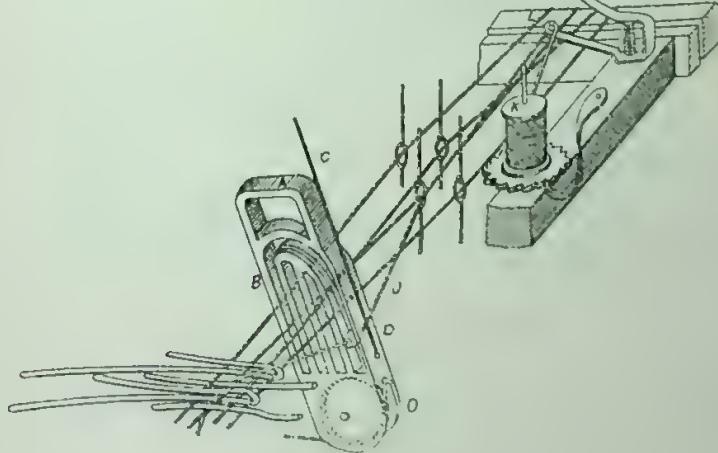
tube (D) is attached, so as to move along the outer partition (B) together with the band (C), and through this tube (D) is passed another warp thread.

FIG. 54.



The band (C) passes around the outer partition (B), and around the pulley (O) just below the cord guide. One end of the cord is carried over the

FIG. 55.

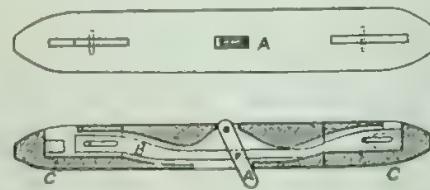


pulley (E), and is attached from above to the wheel (F) fixed to one end of the rocking shaft (G), by which the heddles are raised and lowered. The other end of the band (C) runs round the pulley and outer partition of the other cord guide, then over the pulley (H) and is wound on the wheel (I), at the other end of the rocking shaft (G). Now as the shaft (G) rocks to raise and lower the heddles, the tube (D), and consequently the warp thread passed through it, will be made to move to and fro around the partition (B) by the band (C). Thus the warp thread (J) will bend up the end of every other rush and weave it into the web, thus knitting the margin. The warp (J) is wound on the spool (K) and to adjust its tension it is made to pass over a pulley (L) at one end of the lever (M) furnished with a spring, the other end (N) of the lever (M) being connected with the pulleys (F) (I) at the ends of the rocking shaft (G).

Patentees, M. Ishimori, Y. Moriyama,  
F. Ouchi, M. Taoka.  
Patented, Sept. 25, 1901.

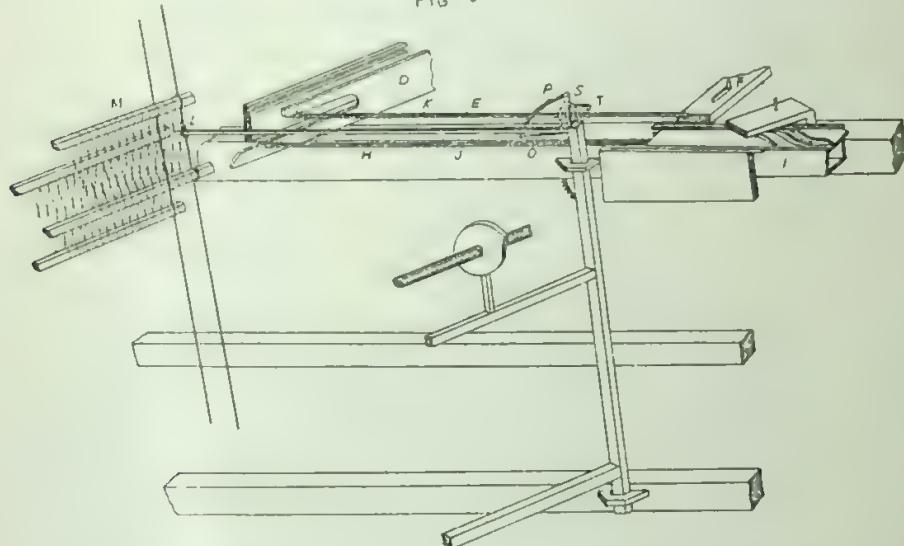
This matting weaving machine is furnished with not only a fly shuttle, heddles, and a reed as in an ordinary loom, but also with a specially constructed margin knitting device, and all these parts work automatically. Its shuttle, as shown in Fig. 56, has at its middle part a bar weight (A), which swings on a pin. In the interior of the shuttle is a flat lever (B) loosely connected at its middle part with the bar weight, so as to move right and left as the weight swings. On moving right and left the lever closes one or the other of the holes (C, C) pierced from the side one near each end of the shuttle, and holds fast the rush introduced into one or the other of the holes. Now the shuttle box in Fig. 57 has a hole on its side to introduce the rush in. When a rush is introduced into this hole, it passes into one of the holes (C, C) at the end of the shuttle; then a small piece of board at the bottom of the shuttle box pushes the bar weight (A), and the lever (B) holds fast the

FIG. 56.



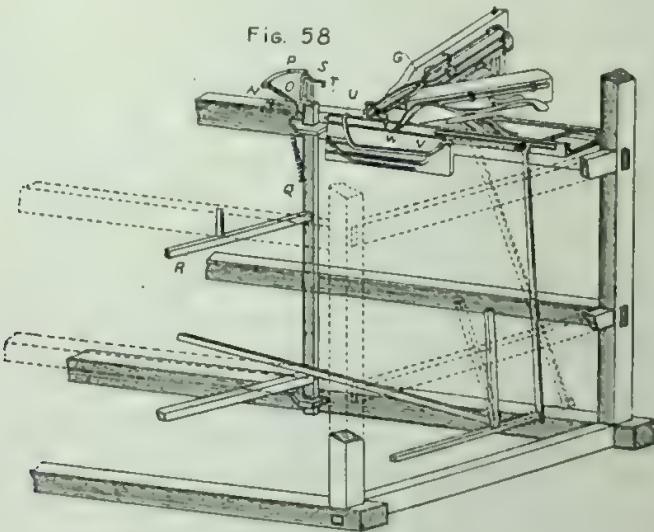
rush. Then the shuttle is struck by the picker, shoots through the shed and arrives at the shuttle box on the other side of the machine. The

FIG. 57.



shuttle box being grooved on its bottom, the weight bar (A) now hangs down by its own weight and thus the lever (B) releases the rush. At the same time the reed drives the rush a certain distance, and afterward closes the web by means of a rod with numerous teeth on it.

FIG. 58

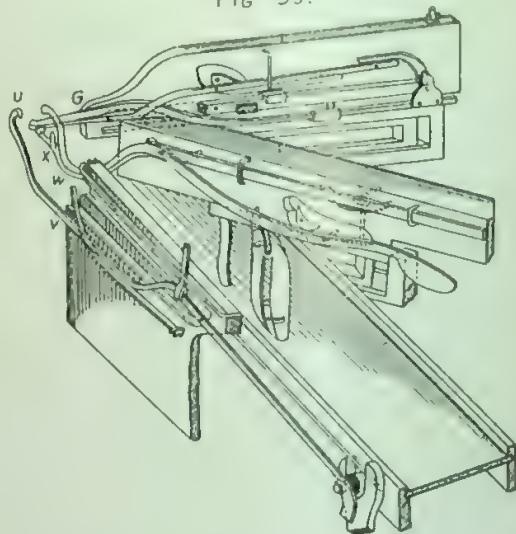


After weaving four rushes in the manner described above, the margin is to be knitted. As a preparation for this the ends of the four rushes must be separated up and down, two and two. To do this a slender rod

(E) is connected at one end with the shuttle box (D) and at the other end with the frame (F) of the pincher (G) to be described farther on. Another slender rod (H) is connected with the shuttle box (D) at one end and at the other with the board (I). Between these two rods another rod (J) with a joint (K) is fixed at one end to the frame (F), the other end passing through a loop (L) of a cord at the end of the heddle (M). Thus the rod (J) moves up and down together with the heddle (M) and the inserted rushes alternately pass above and below the rod (J). As the rushes are combed in by the closing comb their ends are chopped off by a kind of scissors which consist of the lower blade (N) and upper blade (O), Fig. 58. The end of the upper blade (O) is joined to a curved lever (P), the other end of the lever being attached to the top of the side piece (Q) of a frame (R). Thus when the frame (R) goes down the upper blade also goes down and chops the ends of the rushes. At the top of the side piece (Q) is also attached a crooked pin (S) to which is attached a hook (T). The free end of the pin (S) which is bent down, is notched. The pin, as it goes down, pushes down the inner one of the two marginal warps, causing a shed, and the hook (T) catches the ends of the rushes lying over the rod (J).

The contrivance for knitting the margin is a very complex one as is shown in Figs. 58 and 59. It consists of a lever (V) with a hook (U) and two pairs of pinchers (G) and (W), which move in concert and perform the required work. The lever (V) when it begins to move, has its head lowered, but when it runs its full course, the head is raised and it retires catching with its hook the ends of a certain number of rushes. When the lever begins to retire, the pinchers (W) come up and bite the rushes caught by the hook (U). Then the head of the lever is again lowered and it

Fig. 59.



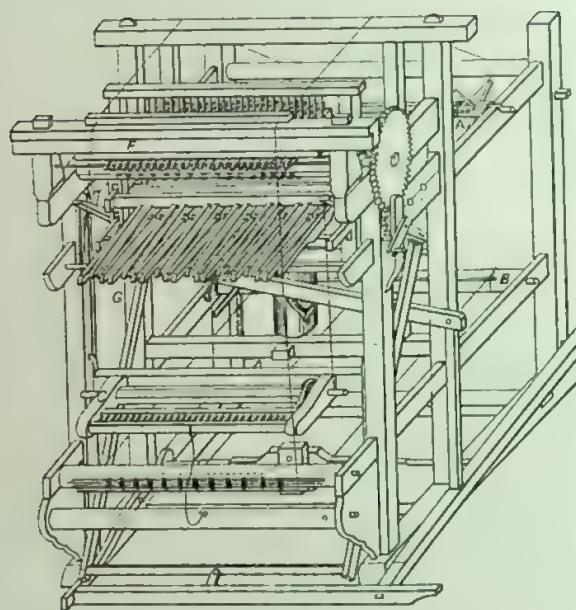
returns to its former position. The pinchers (W) are so fixed as to move in a line oblique to the warps. When they begin to move they are opened, but when they receive the rushes from the hook they become closed, and move on biting the rushes. At the end of their course they push up their head, give the rushes to the pinchers (G), open and retire. The pinchers (W) have a pin (X) near the end to make the biting of the rushes sure. The pinchers (G) move at a right angle to the warps. When they begin to move, they open, but at the end of their movement, when they receive the rushes from the pinchers (W), they become closed and return biting the rushes as they move.

Now when four rushes are inserted and driven by the reed a certain distance, the ends being separated by the rod (J), two above and two below, the closing up comb receives them and pulls them in. The scissors cut the ends, and at the same time the pin (S) pushes down the inner one of the two marginal warps. Then the hook (T) catching the upper rushes pushes them down. Next the hook (U) receives the two rushes from the hook (T) and gives them to the pinchers (W). The pinchers (W) move under the two marginal warps and push up their head; at the same time the pinchers (G) come in between the two marginal warps and, after receiving the two rushes, from the pinchers (W), recede holding the rushes fast. In this way the margin is knitted just as it is by hand, the two upper rushes being wound around the two warps, and come out from between them, at the same time enwrapping the two lower rushes.

Patentees, T. Takatsuka, S. Sawada,  
Patent No. 1256 { S. Hayashi, G. Nagahara.  
Patented, June 19, 1891.

This machine, which is now in very wide use, consists, as in the common machine, of a warp beam (A), a web beam (B), and a reed (C) which moves up and down. Around the shaft (D) are inserted a number of pins (E, E, E.....) so arranged as to correspond to the pattern to be produced. Over the shaft (D) are placed levers (F, F.....) corresponding to the number of the warp threads, so as to be lifted up in turn by the pins, as the shaft revolves. Each of these levers turns on an axle at one end,

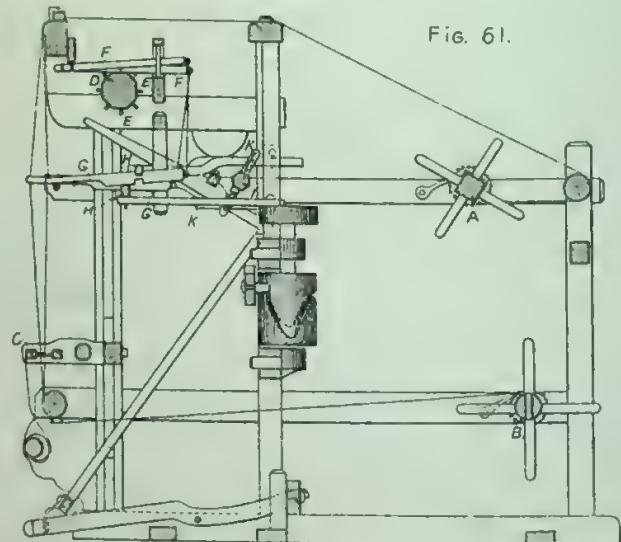
FIG. 60.



needles. Each needle has two notches, one on the upper, and the other on the lower, surface. So the up-listed needles will be caught by the upper beam and will move with it, while the other needles move with the lower beam. Thus the various kinds of shedding required will be formed. The beams (H, H) are moved by the rocking shaft (I) by means of arms (J, J) and levers (K, K).

and the other end is connected by a cord with one of the shedding needles (G, G ..), which are also equal in number to the warp threads. Thus the shedding needles corresponding to the levers listed by the pins on the shaft, will also be listed up. Now there are two beams (H, H) moving alternately backward and forward, one above and the other below, the shedding

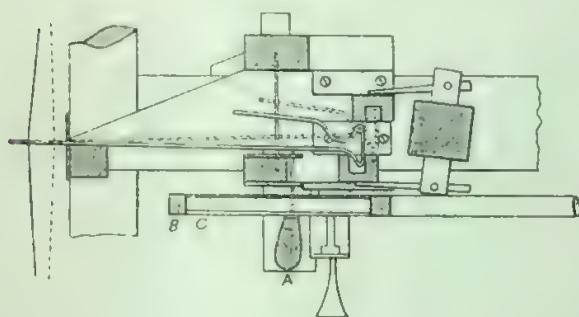
FIG. 61.



Patent No. 4914 { Patentees, K. Fujiwara, I. Sato,  
Patented, Nov. 9, 1901.

Over a cam (A) is placed a frame (B) over which is stretched a pattern card (C), with holes so arranged as to correspond to the pattern to be

Fig. 62.



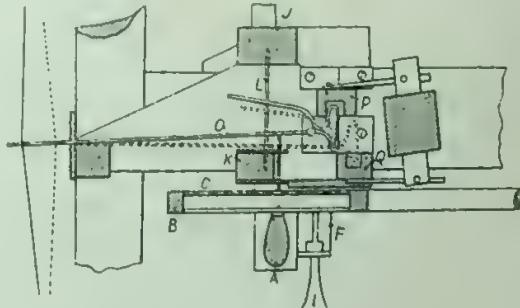
woven. On the right and left sides of the frame (B), are inserted a number of pins (D, D', etc.), each lying on a line passing between the rows of holes of the pattern card. Adjoining each side of the frame (B) is fixed on post (E) an L shaped block (F) with a projection (G) on the middle line and a little lower down near the edge, a pin (H). Exactly midway between the projection (G) and the pin (H) is loosely fitted a swinging needle (I), with its upper part shaved off to facilitate sliding over the pins (D, D', etc.) and its lower part expanded to keep it in a vertical position. Now when the cam (A) is turned as shown in

Fig. 65, *a* in the direction of the arrow, the frame (B) will be moved upward and forward, and a pin, say (D), will push the swinging needle (I) till it is stopped by the pin (H). When the frame is raised up to the limit it will assume the

position shown in Fig. 65, *b*, and, on the farther turning of the cam, it will take the position shown in Fig. 65, *c*. Thus in every revolution of the cam the frame advances just one space, and after it has run the whole distance the cam is reversed, and the frame returns space by space.

Above the pattern card (C) are two beams (J) and (K) connected by a number of small rods (L, L, etc.). The lower beam (K) is covered by planks (N, N') on the upper and lower surfaces. Through these planks

Fig. 63.



are pierced holes so as to correspond to the vertical rows of holes of the pattern card. In each of these holes is fitted a pin with its head bent at

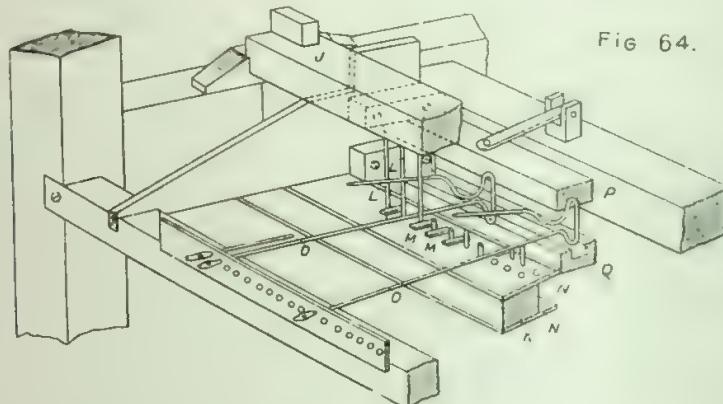


FIG. 64.

a right angle and its lower end just reaching to the surface of the pattern card. Behind the beams (J) and (K) are two pieces (P) and (Q), the piece (P) has a groove on its lower surface and the piece (Q) on its upper surface, and these pieces move alternately backward and forward. Over the head of each pin (M) is placed a shedding needle, the end of which is bent T shaped, so that when the needle is in its lower position its end is caught by the groove of the piece (Q), and when it is raised by the groove of the piece (P).

FIG. 65.

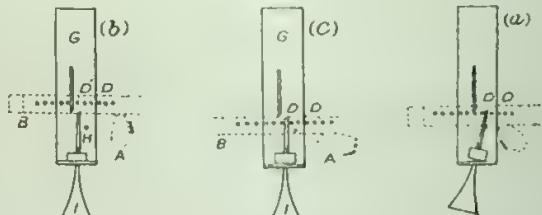
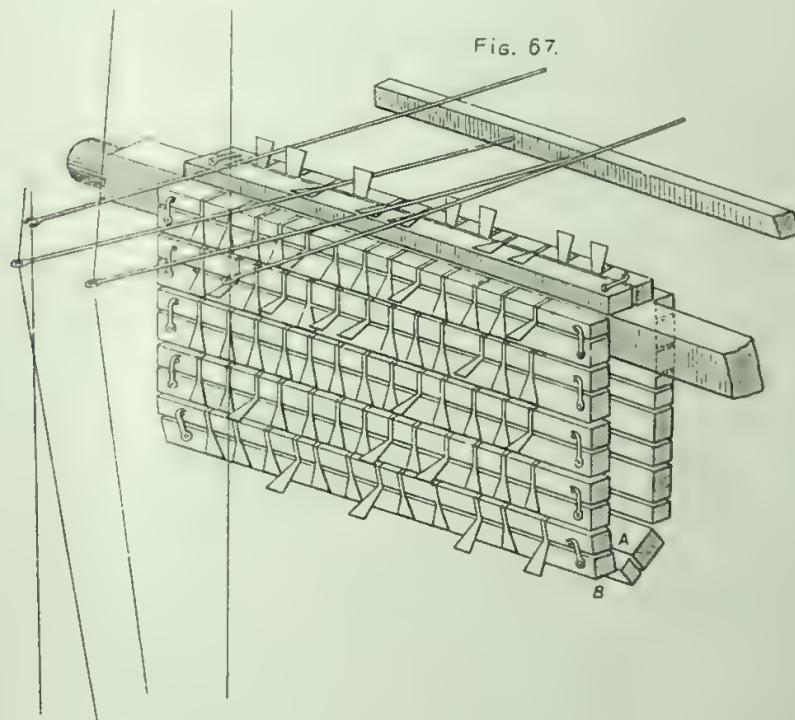


FIG. 66. Now when the cam is turned and the frame (B) is raised, the pins (M, M, . . .) that lie just above the holes of the pattern card will go through them, but all the other pins will be raised up. All the shedding needles that lie over the raised pins (M, M) will be caught by the groove of the piece (P), and will move with (P), all the other needles moving with (Q). Thus the required sheddings are formed.



Patent No. 4858 { Patentee, I. Namba.  
{ Patented, Oct. 10, 1901.

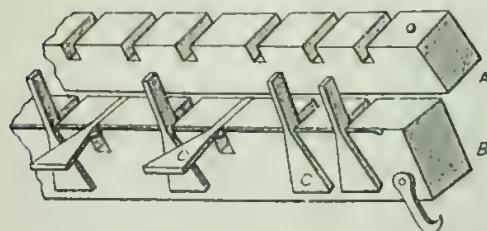
This is an improvement of the pattern chain. A number of pairs of thick boards (A) and (B), joined by hinges and provided with grips, are



loosely joined together so as to form an endless chain. Each board (A) and (B) is provided with notches at the required intervals. At each notch

of each board (B) is fitted a pin (C), so that it can be raised up, or be made to lie flat. In order to form the pattern chain the pins required to form the pattern to be woven, are raised up, and are kept in that position by their feet being held between the pairs of boards (A) and (B).

FIG. 68.



## CHAPTER IV.

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### MATCH MANUFACTURING MACHINES.

In Japan it is principally matches with wooden splints that are manufactured. Among the machines patented in connection with the manufacture of matches are those for shaving skillets for boxes, those for preparing boxes, those for cutting splints, those for arranging splints for dipping in a combustible composition, those for filling boxes, etc. In this book however we shall describe only a few of the inventions for arranging the splints for dipping.

Hitherto machines known in Japan as the German model have been used. They are still much in use, but by these machines the dipping frames are not fully filled, and the splints incline towards each other, causing clotting on the heads. They require also too much power to work them, so that they are not fit for women and boys. For this reason there have been invented very simple machines which nearly imitate the manual operations hitherto performed and which do not require much power in operation. They have been gradually improved, and have now become automatic machines.

In machines of the German model, the splints are pushed down, through holes in the bottom of a feeder, into spaces between the laths of a dipping frame. The frame is then screwed up and the splints are hold fast by the laths. In the new kind of machines on what may be called the "pushing out" system, the splints are dropped, through slits in the bottom of a feeder, over a board with many guiding grooves, one groove for each splint. The splints dropped down over the grooves are pushed out by a comb-like pusher, over a lath placed in front of the guide board. Another lath is placed over the lath thus charged and another row of splints is pushed out, and so on. After a sufficient number of laths is piled up, they are bound together and the splints are ready to be dipped.

Patentees, M. Shimizu, M. Ogino.  
Patent No. 2796. Patented, Oct. 28, 1896.

In the two parallel grooves (A) and (B) on the inner side of two posts (C, C), which stand facing each other, are fitted two boards (D) and (E).

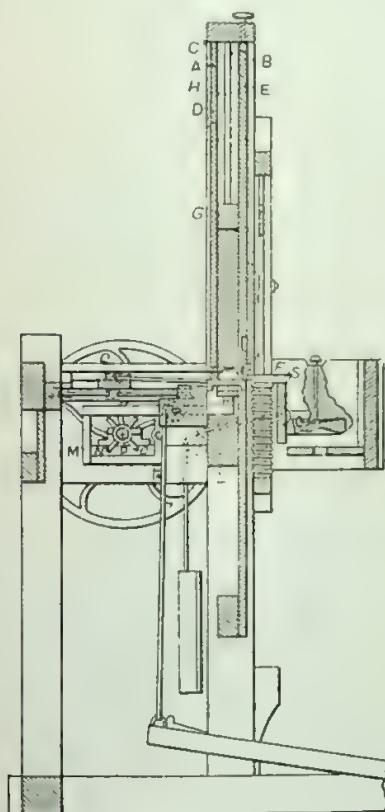
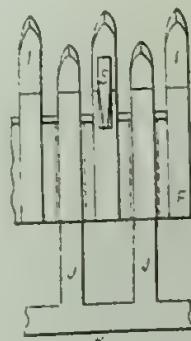


FIG. 69.

These two boards together with a splint-guide board (F), immovably fixed just under them, form a kind of box, into which the splints are first put. Over the splints thus put in is placed a thick board (G), which moves in grooves (H, H) on the posts (C, C), and keeps the splints from dancing when they are shaken. Along the lower edge of the outer board (E) are fixed two rows of brushes, the inner shorter and stiffer to prevent any of the splints pushed out, except the lowest layer, from passing. The outer row has longer and softer brushes to keep the splints from springing up as they are pushed out. On the surface of the guide board (F) are planted at regular intervals thin partitions (I, I...). Midway between these projections there

are slits through the guide board, through which stick out similar partitions (J, J....) fixed on a movable board (K) just below. Thus deep grooves are formed between these partitions just wide enough to admit freely one splint. These grooves are further deepened on the surface of the immovable guide throughout the whole breadth, so as to guide the splints straight over the lathe without turning to the left or the right. The movable board (K) is connected with the arm (L) of a rocking frame (M) which is moved up and down by the arms (N, N) and (O, O) of an axle (P). Attached to a cross piece (Q) is a

FIG. 70.



set of pushing rods (R, R.....), each of which moves in a groove on the guide board (F). Attached to this cross piece (Q) at both ends and at the middle are three arms (S, S, S), projecting out from the pushing rods and with their ends rounded into curves. These arms serve to press down a lath and keep it fast when a row of splints is pushed on over it. The laths are similar to those commonly used, but have a groove at both ends to receive the arms (S, S), by which a lath is held in proper position to receive splints in the grooves of its surface as they are pushed out from the guide board (F).

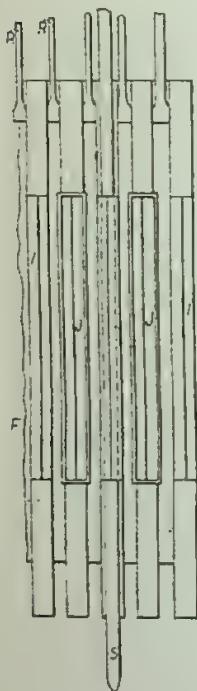


FIG. 72.

Now after adjusting the brushes to their proper position, the shaft (P) is turned. The rocking motion of the frame (M) will be transmitted to the board (K) causing it to move upward and downward. The upward and downward motion of the partitions (J, J.....) of the board (K) will make the splints fill all the grooves formed by the two sets of partitions (J, J.....) and (I, I.....). Then the arms (S, S) move on and press down the lath to the proper position. Following the arms the pushing rods move on and push out along the grooves on the guide board (F) the lowest layer of splints thus filling the grooves and arranging a row on the lath in regular order. The arms (S, S, S) and pushing rods (I, I ..) retire, a new lath is placed over the splints, the arms (S, S, S) again come on, pressing down the new lath to its proper position. A new layer of splints, is pushed out by the pushing rods and regularly arranged over

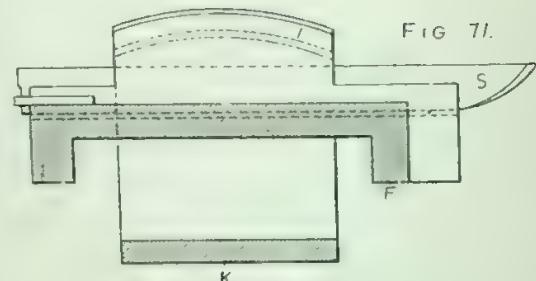


FIG. 71.

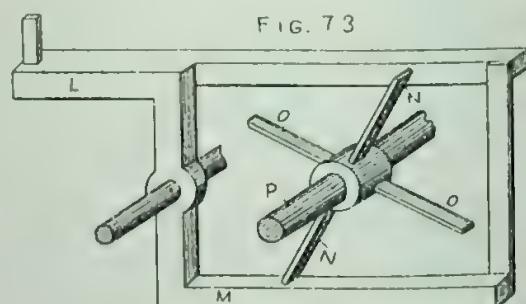


FIG. 73

the new lath, and so on. After a sufficient number of laths are thus piled up, they are made fast by means of wedges and taken out, ready to be dipped in the combustible composition.

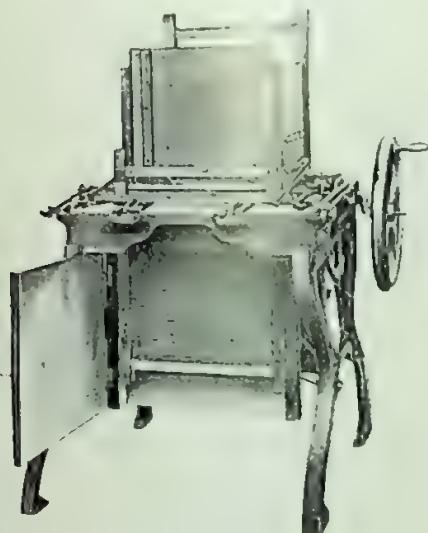
FIG. 74.



Patent No. 2945 *Patentee, U. Fujiwara.*  
*Patented, Sept. 8, 1897.*

Fig. 77 shows a lengthwise section of the box (A), of which a frame (B) with a grating of parallel bars forms the bottom. At one end of the

FIG. 75.



frame (B) is planted a pig (C) which is fitted into a waving line groove on the surface of a guide beam (D), so that when the box moves right and left the frame (B) may receive a waving motion forward and backward. Fig. 78 is a cross section of the box (A). The box consists of three compartments (E) and (F, F). Under the boards (G, G) forming the sides of the compartments (F, F) is fitted a roller (H, H) which is wrapped with india-rubber. Under the box (A) is a moving guide board (I), the two ends (right and left) of

which are cut into teeth. The under surface of this guide board is grooved. Under this movable guide board are two guide boards (J, J), the upper surface of which are also grooved, so that the projecting parts on the lower surface of the movable guide board fit into the grooves of the upper surface of the immovable guide boards. The projecting parts of the lower guide boards are obliquely scooped off as shown in (1). Now if the box (A) moves towards the right from the position shown in Fig. 78, as the box moves on, the frame (B) will receive a shaking motion, and the splints contained in the compartment (F) will drop from between the bars over

the moving guide board, of which some will get in between the teeth, that is, over the projections of the lower guide board. As the box moves

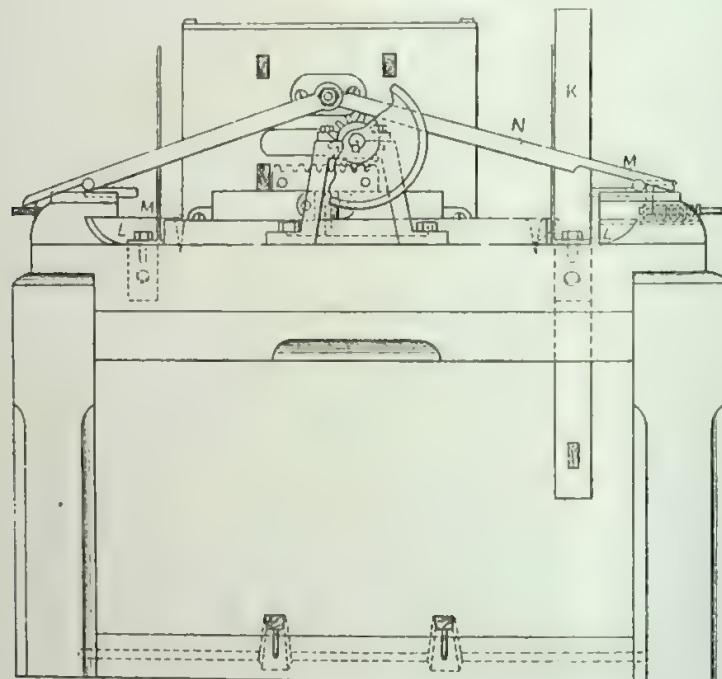


FIG. 76.

on farther the splints over the projections of the lower guide board will be pushed on till they arrive at the scooped part. Then the box retires, leaving only one splint over each projection of the lower guide board, the

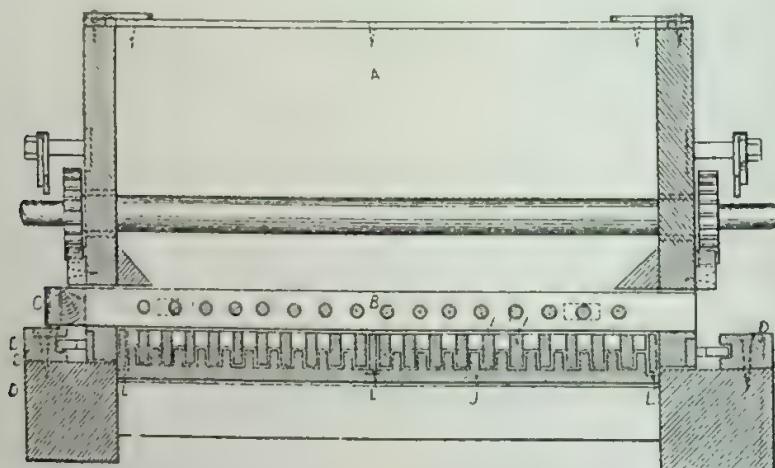


FIG. 77

others being carried back by the roller (H). These splints, as soon as they are freed from the teeth of the upper guide board, will tumble over into

the grooves of the lower guide board. Again the box moves on dropping splints between the teeth and over the projections of the lower guide board as before. At the same time the teeth push out the splints in the grooves, and arrange them in regular order on a lath, which is ready to receive them. As described above the splints are pushed twice before they are arranged over the lath.

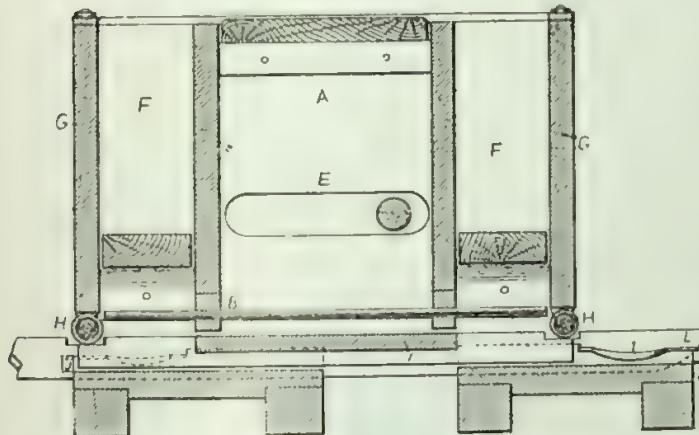
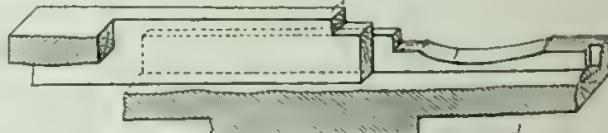


FIG. 78.

The laths are made ready to receive the row of splints automatically by the following contrivance.

First all the laths placed in the lath frame (K) are lifted up and rested over the lath supporters (L, L) of which there are three. The lath supporters move together with the moving guide board, and the lower angle of the ends are cut off into a curve. All

FIG. 79.



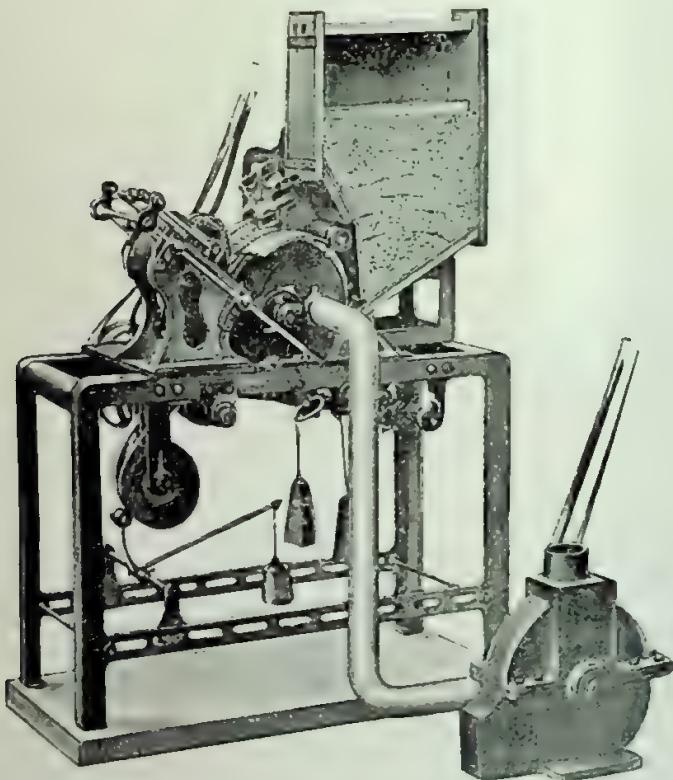
the laths resting on the lath supporters, except the lowest one, are pressed on the side by the lath-presser (M) by means of springs. Now if the lath supporters retire together with the moving guide board (I), the lowest lath will fall down. When the lath supporters come on the next time together with the moving guide board, the supporters will press down the lath that has already fallen to the proper position to receive a row of splints. At the same time, an arm (N) which also moves together with the box will push away the lath presser (M), and thus the laths held by the presser will fall down over the supporters. On the supporters again receding, the presser will be freed and will again press all the remaining

laths except the lowest, and on their receding farther the lowest lath will fall down, and so on. The machine is furnished with a similar mechanism on the left and on the right, and is double acting.

Patentees, S. Nagai, T. Nagai.  
Patent No. 4404 { Patented, Nov. 20, 1900.

This machine, on what may be called the "sucking" system, consists of a splint-feeder (A) and a cylinder (B), fixed adjoining the lower opening

FIG. 8o.



of the feeder and turning in the direction shown by the arrow. The cylinder has a groove to receive a band (C), and a toothed wheels at both ends to receive splints in the notches between the teeth. At each notch there is a small hole (D) which communicates with the interior of the cylinder which is made hollow. From one side of the cylinder is introduced the tube (E') of a centrifugal fan (E), which bends up, so that it has communication only with the small holes of the cylinder (B), at the top. The band

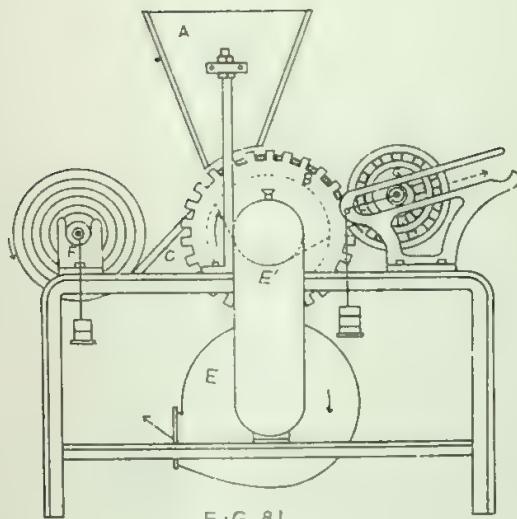


FIG. 81.

(C) is wound on an axle (F) and passes over the cylinder (B) to another axle (G) on which it is wound together with the splints as it is unwound from the axle (F). Now if the fans are turned the current of the air will cause the splints, contained in the feeder arranged parallel to the cylinder, to fly towards the wheels and they will be caught one by one by the notches. As the band moves, and with

it the cylinder, in the direction of the arrow, it will take the splints off the notches and will carry them on it as it is wound on the axle (G). Then the splints are ready to be dipped in the combustible composition.

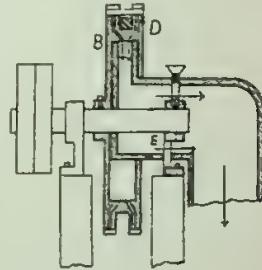


FIG. 82.



## APPENDIX



# THE PATENT LAW.

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(LAW No. 36, MARCH 1, 1899.)

Art. I.—Any person who has made a first and original invention of any industrial article or process or his assignee or successor may obtain a patent in accordance with the provisions of this Law.

A patent of an invention of an article grants a patentee the exclusive right to manufacture, use, sell, or circulate the article invented by him.

A patent on the invention of a process grants to the patentee the exclusive right to use or circulate the same. The validity of the patent extends to the article manufactured by the same process.

Art. II.—The following inventions are not patentable:—

1. Articles of food, or drink, or taste (Genuss-mittel).
2. Medicines or methods of compounding them.
3. Articles which are or may be injurious to public order or morality.
4. Articles which have been publicly known or publicly used before the application for a patent. This restriction does not apply to articles which have been known to the public by way of experiment for a term not exceeding two years.

Art. III.—The term for which patents shall be granted is fifteen years, and such term shall be reckoned from the day of registration.

Art. IV.—A patent may be assigned, with or without restrictions, or may be made joint property, or the subject of a right of pledge.

In the cases mentioned in the preceding clause, either act cannot be set up against a third person, unless it has on application been registered at the Patent Office.

Art. V.—No official of the Patent Office shall, during his service, be the owner of a patent, unless he has obtained it by succession or unless he has owned it before his appointment.

Art. VI.—Any person wishing to make application for or claim with reference to a patent or any patentee who has no domicile in the Empire, shall appoint an agent who has a domicile in the Empire.

The agent mentioned in the preceding clause shall represent the principal in proceedings before the Patent Office, and in civil actions and denunciation with regard to the patents, in accordance with the provisions of this Law and of Ordinances issued according to this Law.

Art. VII.—If the Director of the Patent Office considers that an agent in matters of patent is unfit for the duty, he may order the appointment of another.

Art. VIII.—A person who wishes to make a patent agency his profession shall make application for registration as such to the Director of the Patent Office.

The rules with regard to the registration of patent agents shall be determined by Ordinance.

Art. IX.—If an agent who has been registered under the preceding article is guilty of a criminal act or of dishonest conduct in prosecuting his profession, the Director of the Patent Office may suspend or prohibit the exercise of his profession as an agent.

Art. X.—If an applicant for, or a claimant of, a patent does not take the regular or designated procedure within the time prescribed by this Law or by an Ordinance

issued according to this Law, or fixed by the Director of the Patent Office, or by the presiding judge at a trial, in accordance with the provisions of this Law or of an Ordinance issued according to this Law, such application or claim shall be invalid.

Art. XI.—Any person who desires to obtain a patent shall make application to the Director of the Patent Office, annexing the specification and necessary drawings for each invention.

The Director of the Patent Office may order the applicant to send in a model or specimen, if he considers it necessary.

Art. XII.—An invention for which an application for a patent has been made shall be examined by one of the examiners of the Patent Office.

Art. XIII.—When the examiner has decided that a patent should be issued, the Director of the Patent Office shall register it in the Register of Patents and proceed to deliver letters patent.

Letters patent shall be signed by the Director of the Patent Office, and the specification and necessary drawings shall be annexed thereto.

Art. XIV.—If a person, who has applied for a patent on his invention in a country belonging to the International Union for the Protection of Industrial Property, applies for a patent on the same invention in this Empire after the date of the filing of the original application and *within a certain term fixed by the convention*,\* the application made in this Empire shall have the same validity as if it had been made on the date of the original application.

Art. XV.—A person having an article which is to be exhibited at an exhibition, or at a competitive show held by the Government, or by a *Fu* or *Keu*, who intends to make application for a patent thereon subsequently to exhibition shall give notice of his intention to the Director of the Patent Office before exhibiting the same.

In the cases mentioned in the preceding clause, the application which has been made within six months from the day of receipt of the article at the exhibition or the competitive show, shall have validity as if it had been filed on the same day as the original notice.

If an international exhibition is held in a country belonging to the International Union for the Protection of Industrial Property, the period of priority allowed in that country for an application for a patent, shall be valid in this Empire also.

Art. XVI.—If the Director of the Patent Office considers that the general use of any invention is desirable for the public interest, or that it is necessary or should be kept secret for military purpose, or the proper authorities make demand for on the same ground, the Director may grant a patent with restrictions, or may fix restrictions to, or revoke, a patent already granted.

In the cases mentioned in the preceding clause, the Government shall give adequate compensation to the applicant or patentee.

Art. XVII.—Any person who has applied for a patent on an improvement on a patented invention of another person, and has obtained a favourable decision, shall consult with the patentee and obtain his consent to the use of the original invention.

If the inventor cannot obtain the consent mentioned in the preceding clause, he shall submit a statement of the circumstances to the Director of the Patent Office. The Director may grant a patent for the invention, if there is sufficient reason for so doing; but the inventor can not make use of the patented invention, unless he pays to the original patentee such compensation as the Director may think adequate.

Art. XVIII.—Any person who is not satisfied with the compensation mentioned in the two preceding articles, may bring an action in a court of law, but in the cases under Article XVI, the decision of the Director shall not be suspended by such action.

Art. XIX.—A patentee may obtain a supplementary patent on an improvement invented by using his patented invention.

A supplementary patent follows the original patent as regards transfer and time of expiry.

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\* These amendments were made by Law No. 2 of February 12, 1922.

Art. XX.—Patents shall be invalid if inventions for which they are granted fall under one of the following cases:—

1. Inventions which are in contravention of the provisions of Article I. and Article II.
2. If matters important to the working of the invention have been intentionally omitted from the specification.
3. If matters not important to the working of the invention have been intentionally inserted in the specification.

Art. XXI.—If an examiner of the Patent Office decides that a patent should not be granted, the Director shall send a written statement of the decision to the applicant.

Art. XXII.—If an examiner decides that the invention for which a patent is applied for interferes with one already under consideration, or with an already patented invention, the Director of the Patent Office shall send a written statement of such decision to the parties concerned.

Art. XXIII.—Any person who is not satisfied with the decision mentioned in the two preceding articles, may within sixty days from the date of receiving the written statement of decision, file at the Patent Office, a written statement of his grounds of dissatisfaction and demand a re-examination.

If a demand for re-examination is preferred to the Patent Office, the Director shall instruct an examiner who has had no concern in the previous decision, to re-examine the application.

If the examiner decides that the grounds for dissatisfaction are unreasonable, the Director of the Patent Office shall send a written statement to that effect to the applicant.

Art. XXIV.—If a decision relating to an interference of inventions has been confirmed, the Director shall require the parties to file detailed accounts of their inventions, shall instruct an examiner to decide the question of priority, and shall send a written statement of the examiner's decision to the parties concerned.

Art. XXV.—If under the preceding article, an existing patent is revoked and another patent granted for an invention on account of which an application for a patent has been made, the latter shall date from the registration of the former.

Art. XXVI.—If a patentee finds that his specification or drawings are imperfect, he may make application for amendment of his letters patent, annexing the amended specification or drawings. If a patentee finds it necessary to divide letters patent into two or more, the above procedure shall be followed. But changes in the essential part of an invention do not come under this rule.

Art. XXVII.—If an application under the preceding article has been made, an examiner shall examine it.

Any person, who is not satisfied with the decision of the examiner mentioned in the preceding clause, may demand a re-examination, in accordance with Article XXIII.

Art. XXVIII.—Any person who is not satisfied with the result of the re-examination under Articles XXIII. or XXVII., may, within sixty days from the receipt of the written statement of decision, demand a trial before the Patent Office.

The preceding clause shall be applicable in the case of a person who is not satisfied with a decision given under Article XXIV.

Art. XXIX.—If two or more patented inventions are found to be in conflict with one another, or if patented inventions are found to be in conflict with unpatented articles or processes, the interested party or parties may demand a trial before the Patent Office for the determination of their respective rights.

Art. XXX.—Any person finding that an invention for which a patent has been granted falls under Article XX., may demand a trial before the Patent Office in order to annul the patent.

Art. XXXI.—With regard to an examination, or trial, or an award of compensation, the Patent Office may, if such a course seems necessary, at the request of either of the parties, take evidence or entrust the case to the proper District Court.

With regard to the method of taking evidence mentioned in the preceding clause, paragraphs 5 to 11 inclusive of the first chapter of the second section of the Code of Civil Procedure shall be applied correspondingly.

Art. XXXII.—A case to be tried at the Patent Office shall be heard by three or five judges, and one of them shall be the presiding judge.

The reasons for a judgment must be stated in delivering it.

Art. XXXIII.—Application for a trial shall be made in writing and in duplicate. In such written applications the grounds for the trial shall be stated.

The Patent Office, upon receipt of a written application for a trial, shall send the duplicate copy of such application to the other party, and direct him to file two copies of his answer within the time designated.

The Patent Office, if such a course is considered necessary, shall in addition direct the parties to file, within a designated time, rejoinders and surrejoinders.

The presiding judge at the trial may hold an oral trial on his own motion or at the request of both parties.

Oral trials shall be public.

Art. XXXIV.—If an applicant for a trial, or the other party, does not file his answer, rejoinder or surrejoinder, as the case may be, within the time designed; or one of the parties does not appear at the time designated for hearing the arguments, the presiding judge at the trial may close the trial after hearing the case of one party.

Art. XXXV.—Any person who is not satisfied with a judgment with regard to demands mentioned in Clause II. of Article XXVIII., in Article XXIX., and in Article XXX., may bring an action in the Supreme Court within sixty days from the date when the written judgment reaches him, but only on the ground that the law was not applied at all, or was improperly applied.

As to the actions and judgments mentioned in the preceding clause, the provisions of the Code of Civil Procedure relating to appeals to the Supreme Court and its judgments in a civil action shall be applied correspondingly.

Art. XXXVI.—The Supreme Court, if it considers that there is reasonable ground for bringing an action, shall repeal the original judgment, and shall send the case back to the Patent Office for a new trial.

An opinion expressed by the Supreme Court on a point of law shall bind the Patent Office with regard to the case in question.

Art. XXXVII.—The judge presiding at a trial held in compliance with the demand mentioned in Clause II. of Article XXVIII., in Article XXIX., and in Article XXX., shall fix the incidence and amount of the costs.

In cases where the Supreme Court has awarded incidence of costs, amount of the costs shall be determined in the same way.

Articles LXXII. to LXXXII., inclusive, and Articles LXXXVI. of the Code of Civil Procedure, and the Law concerning Costs in Civil action shall be applied correspondingly with regard to the costs mentioned in the two preceding clauses.

Art. XXXVIII.—If a patented invention comes under the following cases, the Director may revoke the patents:—

1. If the patentee, without proper reason, has not worked and exploited his invention in the Empire within three years from the date of his patent or discontinues working and exploiting the invention for more than three years in the Empire, and has refused the offer of a third person to purchase or use the invention on reasonable terms.
2. If the patentee neglects to pay the patent fee for more than sixty days after it falls due.
3. If without proper reason the patentee neglects for more than six months to appoint an agent, as prescribed by Article VI.

Art. XXXIX.—A patentee shall annually pay *yen* 10 as a patent fee for each patent.

The patent fee mentioned in the preceding clause shall be progressively increased by *yen* 5 after every three consecutive years.

If a patentee has obtained a Supplementary Patent he shall pay *yen* 20 as a supplementary patent fee once for all.

Art. XL.—The annual patent fee for each year shall be paid in advance on the day and month corresponding to those set out in the date of the letters patent. The patent fee for the first year, and any fee for a Supplementary Patent shall be paid within sixty days after the receipt of the written statement of decision.

No fees paid in advance shall be returned, but in case fees for more than two years have been paid in advance, the amount which has not yet fallen due shall be returned.

Art. XLI.—A patentee shall make on the object patented an indication that it is patented.

Art. XLII.—The Patent Office shall issue the Official Journal of Patents, publishing therein specifications of patented inventions, drawings, amendment of letters patent, changes affecting rights relating to patents, and other necessary matters concerning patents. But this rule does not apply to cases where secrecy is required.

Art. XLIII.—Any person wishing to have copies of documents or have drawing made, or to examine the Register of Patents, may apply to the Patent Office. But this rule does not apply to cases where secrecy is required.

Art. XLIV.—If a witness or an expert gives false evidence or a false opinion before the Patent Office, or before the court to which a case has been entrusted by the Patent Office, he shall be punished with imprisonment with hard labour for not less than one month and not more than one year, and with a fine of not less than *yen* 5 and not more than *yen* 50.

If a person has caused another by bribery or otherwise to give false evidence or a false opinion before the Patent Office, or the court, to which a case has been entrusted by the Patent Office, he shall be liable to the same punishment as that mentioned in the preceding clause.

If a person who has committed one of the offences mentioned in the two preceding clauses, confesses it to the Patent Office or the court to which the case has been entrusted by the Patent Office, before decision has been pronounced, judgment rendered, or the question of costs determined, he shall not be punished.

Art. XLV.—Any person who counterfeits a patented article belonging to another or who knowingly uses or sells a counterfeit of a patented article, or who steals and uses a technical process patented by another, or who knowingly uses or sells an article manufactured by a stolen process, shall be punished with imprisonment with hard labour for not less than fifteen days and not more than three years, or with a fine of not less than *yen* 10 and not more than *yen* 500.

Any person, who knowingly imports an article infringing the patent rights of another, or who knowingly uses or sells such imported article, shall be liable to the same punishment as that mentioned in the preceding clause.

Art. LXVI.—In the cases mentioned in the preceding Article the forfeited articles shall be given to the patentee.

Art. LXVII.—Any person who has obtained a patent by fraudulent means, or who makes an indication that a non-patented article is patented or any indication that might be so understood, or who knowingly sells such article, shall be punished with imprisonment with hard labour for not less than fifteen days and not more than one year, or with a fine of not less than *yen* 10, and not more than *yen* 300.

Any person who by advertisement, sign-board, hand-bill, or other means, makes an indication calculated to suggest that a non-patented article is patented, in order to promote the sale of such article, shall be liable to the same punishment as that mentioned in the preceding clause.

Art. LXVIII.—Criminal proceedings shall not be instituted with respect to offences falling under Article XLV., unless the injured party or parties denunciate them.

Art. XLIX.—If a patentee neglects to indicate on a patented article that it is patented, he can not recover damages in a civil action except from persons who have infringed his right knowing that the article was patented.

Art. L.—When a patentee sells an essential part of his patented article, separately, he cannot institute criminal proceedings, or claim damages in a civil action on account of the part thus sold.

Art. LI.—The despatch of documents provided for in this Law can be made either by registered letter or by a messenger of the Patent Office. In these cases the mail carrier or the messenger of the Patent Office is considered a bailiff, as defined in the Code of Civil Procedure.

SUPPLEMENTARY RULES.

Art. LII.—This Law shall come into operation on the first day of the seventh month of the thirty-second year of Meiji (July 1, 1899).

Art. LIII.—The Patent Regulations promulgated by Imperial Ordinance No. 84 of the twenty-first year of Meiji, shall cease to be in force from the day of operation of this Law.

Patents secured under the Patent Regulations of the eighteenth year of Meiji, or those promulgated by Imperial Ordinance No. 84 of the twenty-first year of Meiji, shall have the same validity as those secured under the present Law during the term for which they were granted by the former.

Any application or demand with regard to patents which may not have been decided before the date on which this Law comes into operation, shall be dealt with as if it has been made in accordance with this Law.

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# THE PATENT RULES.

(ORDINANCE OF THE MINISTER FOR AGRICULTURE AND COMMERCE No. 13,  
JUNE 20, 1899.)

## CHAPTER I.—GENERAL PROVISIONS.

Art. I.—Applications, demands, notices, &c., concerning patents shall be made by written documents.

As regards documents, one shall be made for each case, and shall contain address and date, and shall be signed and sealed.

When more than one person is interested, or when there are opposing parties, as many duplicates shall be made as there are persons.

Art. II.—In cases where forms are given in these Rules, documents shall be made out in accordance with them.

Art. III.—Documents shall be written in the Japanese language.

If a power of attorney, certificate of nationality, &c., are written in a foreign language, they shall be accompanied by translations.

Art. IV.—When an applicant for a patent files documents relating to the invention on account of which he has applied for a patent, he shall inscribe in these documents the serial number of the application and the title of the invention.

Art. V.—When any person files documents relating to a patented invention, he shall inscribe in the documents the serial number of the patent and the title of the invention.

Art. VI.—When any person has filed at the Patent Office an application or a demand concerning patents, or a notice under the first clause of Art. XV. of the Patent Law, or a document whose filing time is prescribed in the Patent Law or in these Rules, the Office shall give him a receipt for the same. In this case, the date of filing shall be determined by the date inscribed in the receipt.

Art. VII.—If the documents mentioned in the preceding article have been sent by registered mail, the date of filing shall be determined by the date inscribed in the receipt of registered postal matter issued by the receiving post-office.

Art. VIII.—If a document, model, or specimen is not clear or is imperfect, the Director of the Patent Office or the presiding judge may order the amendment, completion, or reconstruction thereof, which shall be made within a duly specified time.

Art. IX.—A person who has filed or deposited a document, model, or specimen may amend, complete or reconstruct the same, but may not change the essential parts of an application or demand.

Art. X.—When a foreigner who has no domicile in the Empire makes an application or a demand concerning a patent, he shall file a certificate of nationality or a document certifying his domicile or place of business.

Art. XI.—The assignee or successor of an invention shall file a document testifying that he is such.

Art. XII.—When an agent makes an application or a demand, or takes other measures concerning a patent, he shall file a document testifying that he is an agent.

Art. XIII.—When a person has appointed an agent in accordance with Art. VI. of the Patent Law, he shall give notice thereof to the Patent Office.

Art. XIV.—When the Director of the Patent Office orders the change of an agent in accordance with Art. VII. of the Patent Law, he shall give notice to the latter.

Art. XV.—When it is not possible to complete the prescribed or designated procedure by the date or within the term appointed by the Director of the Patent Office or the presiding judge, in accordance with the Patent Law or these Rules, the said Director or judge may, on the demand of the party concerned, change the date or prolong the term. It is the same when the term is prescribed in these Rules.

When the Director or the presiding judge has changed a date or prolonged a term under the preceding clause, he shall notify the fact to all the parties concerned.

Art. XVI.—Documents, models, or specimens filed or deposited at the Patent Office, which the Director or the presiding judge thinks it necessary to retain, shall not be given back.

Art. XVII.—If several persons make an application or demand, or take other measures, jointly, they shall choose an agent with full power and mention his name on the documents.

Art. XVIII.—If the Patent Office despatches documents by registered post, the despatch shall be by the post certifying delivery.

Art. XIX.—If documents are sent by a messenger of the Patent Office, he shall inscribe on the envelopes of the documents the date of their delivery and shall affix his seal.

Persons who have received documents thus sent shall give the messenger a receipt showing the date of their receipt.

Art. XX.—If owing to ignorance of domicile or residence or some other cause, documents can not be delivered, the Director or the presiding judge shall publish the fact in the Official Gazette. In this case, after 20 days have elapsed from the day of the said publication, it shall be assumed that the document has been delivered on the twentieth day.

Art. XXI.—A document, model, or specimen coming under any of the following cases shall not be received:—

1. When it is not in conformity with the forms prescribed by the Patent Law or by these Rules;
2. When the registration tax or fees are not paid; or
3. When either the term prescribed by the Patent Law or these Rules, or the term or date designated in accordance with the Patent Law or these Rules by the Director or the presiding judge, has elapsed.

If a document, model, or specimen received by the Patent Office falls under one of the preceding cases, it shall be rejected.

In the cases mentioned in the two preceding clauses, the fact shall be stated in a note affixed.

Art. XXII.—If a person who has made an application or demand, or given a notice concerning a patent, changes his name, domicile, seal or agent, he shall immediately give notice thereof to the Patent Office.

To a notice relating to change of name or seal a certificate shall be attached.

Art. XXIII.—A notice filed in accordance with the first clause of Art. XV. of the Patent Law shall be accompanied by an explanation and drawings.

When the Director has received the notice mentioned in the preceding clause, he shall give a receipt for it.

Art. XXIV.—When any person proves that he is interested, he may demand a certificate concerning a patent; but the Director may refuse to comply with the demand if he thinks that the case demands secrecy.

## CHAPTER II.—APPLICATIONS.

Art. XXV.—An application for a patent made under Art. XIV. of the Patent Law,

shall be accompanied by a copy, certified by the government of the country where the original application was made, of the application, specification and drawings originally filed.

Art. XXVI.—An application for a patent made under the second clause of Art. XV. of the Patent Law, shall be accompanied by the receipt given for the goods at the exhibition or competitive show.

An application for a patent made under the third clause of Art. XV. of the Patent Law shall be accompanied by a certificate showing that a period of priority has been granted by the government of the country where the international exhibition is held.

Art. XXVII.—When the Director of the Patent Office has accepted an application for a patent, he shall register, in the Book of Applications, the serial number of the application, the title of the invention, the names and addresses of the applicant and his agent, and the date of filing the application.

When registration has been made under the preceding clause, the Director shall inform the applicant of the serial number of his application.

Art. XXVIII.—In specifications, the following matters shall be mentioned:—

1. Title of the invention;
2. Summary of the nature and purpose of the invention;
3. Short explanation of drawings;
4. Detailed explanation of the invention; or, in case of an application under Art. XVII. or XIX. of the Patent Law, the relation between the invention and the original patented invention;
5. Claim or claims.

Art. XXIX.—In a claim or claims the essential parts only of an invention shall be mentioned.

Art. XXX.—In drawings the parts necessary for the explanation of an invention shall be shown; and in case of an improvement of an original invention, the relation between such improvement and the original patented invention must also be shown.

Art. XXXI.—A model or specimen shall be made of strong material and its size shall be not more than one cubic *shaku*; but this limitation may be exceeded in case of necessity.

When the material of a manufacture forms an essential part of the invention, a model shall be made of the same substance.

When a specimen is deposited in the case of an invention of substance, a quantity of the substance and ingredients sufficient for purposes of experiment shall be deposited.

Art. XXXII.—When a model or specimen is liable to damage or change, the depositor shall take proper precautions in depositing it.

Art. XXXIII.—The Patent Office shall not be responsible for loss of, or damage to, models or specimens.

Art. XXXIV.—When the Director desires to return a model or specimen, he shall give notice of the fact to the depositor.

If the depositor does not receive the model or specimen, or cause it to be received, within 60 days from the date of the receipt of the notice mentioned in the preceding clause, the Director shall dispose of it at his discretion.

### CHAPTER III.—EXAMINATION.

Art. XXXV.—When the Director has made the registration under the first clause of Art. XXVII., he shall submit the application to an examination.

Art. XXXVI.—Examiners shall examine inventions according to the classes of inventions and the serial number of the application.

Art. XXXVII.—When an examiner considers it necessary to have an experimental test made by an applicant, he shall make a report to the Director in that sense. In such a case, the Director may order the applicant to make the required experiment.

Art. XXXVIII.—In a written decision, the following particulars shall be given and shall be signed by the examiner:—

1. Serial number of application;
2. Title of invention;
3. Name of the applicant;
4. Summary of application;
5. Text and grounds of decision;
6. Date of decision.

Art. XXXIX.—In a written decision upon re-examination, the following particulars shall be given, in addition to those enumerated in sub-headings 1, 2, 5, 6 and shall be signed by the examiner:—

1. Names of claimant and of the parties concerned;
2. Chief grounds of dissatisfaction.

Art. XL.—In the following case, a decision that inventions interfere shall not be given:—

1. When there is some other reason why a patent can not be granted.
2. When the applicant admits that his invention was completed subsequently to the application for patenting the invention with which it may interfere.

Art. XLI.—In a written decision relating to the interference of the inventions, or with reference to the priority of an inventor's completion, the following particulars shall be given, in addition to those enumerated in Art. XXXVIII., and shall be signed by the examiner.

1. Serial number of case of interference;
2. Serial number of the application for the invention or of the patent, which may interfere;
3. Title of the invention which may interfere;
4. Name of the applicant or patentee of the invention which may interfere;
5. Summary of the features of the invention which may interfere, or that of the statements of the parties concerned.

Art. XLII.—When it has been decided that inventions interfere, the Director shall order the parties concerned to file detailed accounts of their inventions within 30 days.

Art. XLIII.—A detailed account shall contain the serial number of the case of interference and a minute statement of the facts relating to the invention.

Art. XLIV.—When the Director receives the detailed account of an invention, he shall send a duplicate of it to the opposite party.

When the examiner thinks it necessary to obtain an answer from the opposite party, he shall report to the Director in that sense, and the Director may then order that party to file a written answer.

The provisions of the two preceding clauses shall be applicable correspondingly to cases where the party concerned corrects, or adds to, the detailed account of an invention or to the answer.

Art. XLV.—The detailed account of an invention, or the written answer shall be accompanied by evidence necessary to prove the facts set forth.

Art. XLVI.—If a party does not file the detailed account of an invention or the answer within the appointed term, the examiner may proceed to decide the case without further precautions.

Art. XLVII.—When the causes of interference cease to exist, the Director shall give notice thereof to the parties concerned.

#### CHAPTER IV.—TRIAL.

Art. XLVIII.—In a written demand for a trial, the following particulars shall be given:—

1. Names and addresses of the plaintiff and defendant;
2. Statement of the case;
3. Chief points of claim and its grounds.

Art. XLIX.—In an answer or rejoinder, the following particulars shall be given:—

1. Serial number of trial;
2. Names and addresses of the plaintiff and defendant;
3. Statement of the case;
4. Chief points of, and grounds for, the answer or rejoinder.

Art. L.—The provisions of Articles XLIV. and XLV. shall be applicable correspondingly to a written demand for trial, answer and rejoinder.

Art. LI.—If a plaintiff withdraws his claim, the Director shall inform the opposite party of the fact.

Art. LII.—When an oral trial is to be held, the presiding judge shall fix the day and inform both parties thereof.

Art. LIII.—In oral trials the Japanese language shall be used; but persons unacquainted with that language may employ an interpreter.

Art. LIV.—In oral trials a record of the proceedings shall be made and the presiding judge, as well as the official who has made it, shall sign and seal it.

Art. LV.—When judgment is given, the Director shall send copies of the written judgment to both parties.

Art. LVI.—In a written judgment, the following particulars shall be given, and it shall be signed by the judges concerned:—

1. Serial number of trial;
2. Names and addresses of the plaintiff and defendant;
3. Statement of the case;
4. Chief points of claim, reply, and rejoinder;
5. Text of judgment and its grounds;
6. Date of judgment.

Art. LVII.—If the judges consider the decision of an examiner unreasonable, the Director shall submit the case for further examination.

Art. LVIII.—A person who desires to obtain a judgment as regards the amount or incidence of the costs of a trial, shall present to the presiding judge a written application, accompanied by an estimate of the costs and other necessary documents.

If the presiding judge thinks it necessary, he may hear the opinion of the opposite party.

Art. LIX.—When judgment under the preceding article is given, the Director shall communicate it to both parties.

#### CHAPTER V.—GRANT OF PATENT.

Art. LX.—When the examiner decides that a patent shall be granted, the Director shall enter it in the Register of Patents and transmit the decision in writing to the applicant.

Art. LXI.—When a decision is given as provided in the first clause of Art. XVII. of the Patent Law, the Director shall give notice thereof to the applicant, and order him to file the written consent of the owner of the original patent within a reasonable time, which the Director shall appoint.

When the applicant has filed the above written consent, the Director shall enter it in the Register of Patents and transmit the decision in writing to the applicant.

If the owner of the original patent does not give his consent, and the Director nevertheless grants a patent to the applicant, the Director shall enter it in the Register of Patents, and transmit the decision in writing to the applicant. In this case, the Director shall give notice thereof to the owner of the original patent.

Art. LXII.—Any person desiring to obtain judgment with regard to the amount of compensation payable to the owner of the original patent, shall submit to the Patent Office a written application, accompanied by all documents bearing on the amount of the compensation and the computation of that amount.

When the Director receives an application under the preceding clause, he shall send a duplicate thereof to the opposite party, and may hear the latter's opinion within a reasonable time, which the Director shall appoint.

Art. LXIII.—When the Director has decided the amount of compensation, he shall send a written statement thereof to both parties.

Art. LXIV.—When an examiner decides that the amendment or division of a patent is permissible, the Director shall enter the fact in the Register of Patents and send a written statement thereof to the applicant.

Art. LXV.—Letters Patent shall be prepared according to Forms IX. to XIII. inclusive.

Art. LXVI.—When a person acquires a patent by succession, he shall file a certificate of the fact at the Patent Office and apply for new Letters Patent.

Art. LXVII.—Any person who wishes to obtain registration under the second clause of Art. IV., shall file at the Patent Office a written application, accompanied by a document, in original and duplicate, certifying the cause of registration and the Letters Patent.

When the Director receives an application under the preceding clause, he shall, after he has entered it in the Register of Patents, inscribe it in the Letters Patent, which shall be sent back to the applicant together with the document certifying the cause of registration.

Art. LXVIII.—When, in accordance with Art. XVI. of the Patent Law, the Director grants a limited patent, or refuses to grant a patent, or limits or cancels a patent already granted, he shall state the reasons to the applicant or patentee.

Art. LXIX.—In the Register of Patents the following particulars shall be entered:—

1. Serial number of patent ;
2. Title of invention ;
3. Name and address of the Patentee ;
4. In case of the transfer of a patent, the fact and the restrictions, if any ;
5. In case of joint ownership of a patent, the fact and the respective share of each owner, when the shares are definitely apportioned ;
6. In case of the pledging of a patent, the amount of the debt, the rate of interest, the period of repayment, the order of priority of the right of pledge, and the date of establishing the right of pledge ;
7. Name and address of the agent of a patentee having no domicile in the Empire ;
8. In case of limits attached to a right of patent, the fact and the extent of the limitation ;
9. In case of a Patent of Improvement, the serial number of the original patent, title of the original invention, and consent or non-consent of the original patentee ;
10. In case of a Supplementary Patent, the serial number of the original patent, title of the original invention, and date of registration of the original invention, and date of registration of the original patent ;
11. In case of a patent under Art. XXV. of the Patent Law, the date of registration of the original patent ;
12. In case of the amendment or division of a patent, the fact ;
13. In case of the invalidation, cancelling, or lapse of a patent, the cause and the date when the cause arose ;
14. In case of the issue of new Letters Patent, the fact and the date of issue ;
15. Date of registration.

Art. LXX.—If the particulars entered in the Register of Patents undergo change or cease to exist, the fact shall be entered.

Art. LXXI.—When a judgment of nullification has become conclusive or, when the Director has cancelled a patent, or when a patentee has abandoned his patent, the patentee shall return the Letters Patent.

Art. LXXII.—Patent fees shall be paid in revenue stamps.

Art. LXXIII.—When a patentee has paid patent fees, the Director shall send him a receipt.

Art. LXXIV.—If Letters Patent have been lost or damaged, the patentee may apply for new Letters Patent. In this case, the Director shall inscribe the fact and the date in the new Letters Patent.

SUPPLEMENTARY RULE.

Art. LXXV.—These Rules shall come into force on the day when the Patent Law goes into operation.

FORM I.

APPLICATION FOR PATENT.

Title of invention.

Revenue  
Stamp.

Name of inventor.

I (we), wishing to obtain a patent for the article (process) mentioned in the annexed specification, hereby apply for the same [annexing the necessary certificate (or receipt), when the application is made under Art. XIV. or XV. of the Patent Law].

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To. ...., Director of the Patent Office.

FORM II.

APPLICATION FOR A PATENT OF IMPROVEMENT.

Title of invention.

Revenue  
Stamp.

Name of inventor.

Serial number of the original patent.

Name of the owner of the original patent.

I (we), wishing to obtain a patent for the article (process) mentioned in the annexed specification, hereby apply for the same.

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To. ...., Director of the Patent Office.

FORM III.

APPLICATION FOR SUPPLEMENTARY PATENT.

Title of invention.

Revenue  
Stamp.

Name of inventor.

Serial number of the original patent.

I (we), wishing to obtain a patent for the article (process) mentioned in the annexed specification, hereby apply for the same.

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To. ...., Director of the Patent Office.

FORM IV.

APPLICATION FOR AMENDMENT OF LETTERS PATENT.

Title of invention.

Revenue  
Stamp.

Serial number of patent.

I (we), wishing to obtain an amendment of Letters Patent as mentioned in the annexed specification (drawings), hereby apply the same.

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

FORM V.

APPLICATION FOR THE DIVISION OF PATENT.

Title of invention.

Revenue  
Stamp.

Serial number of patent.

I (we), wishing to obtain permission for the division of a patent as mentioned in the annexed specification (drawings), hereby apply for the same.

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

FORM VI.

NOTICE OF INTENTION TO EXHIBIT AN OBJECT AT AN  
EXHIBITION OR COMPETITIVE SHOW.

Title of invention.

Revenue  
Stamp.

Name of inventor.

I (we), having the intention of exhibiting the invention mentioned in the annexed specification (drawings) at the exhibition (competitive show) to be held on and after . . . . . at . . . . . by the Government (*Fu* or *Ken*), hereby give notice of such intention, in accordance with Art. XV. of the Patent Law.

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

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FORM VII.

DEMAND FOR REGISTRATION.

Name of patentee.

Revenue  
Stamp.

Serial number of patent.

I (we), having obtained the transfer of (right of pledge on) the above-mentioned patent (or a share of it) from....., hereby apply for the registration of the fact annexing the contract (will).

Date

Nationality and Domicile  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

FORM VIII.

DEMAND FOR REGISTRATION.

Name of patentee.

Revenue  
Stamp.

Serial number of patent.

I (we), having become joint proprietor (proprietors) of the above mentioned patent, hereby apply for the registration of the fact, annexing the contract.

Date

Nationality and Domicile ;  
Joint Owner (or Owners)—  
Name or Names (Seal or Seals).

To....., Director of the Patent Office.

FORM IX.

LETTERS PATENT. No.....

Nationality and Domicile ;  
Name.

Title of invention.

The above-mentioned invention, having been declared by the examiner of the Patent Office to be a patentable invention, has been entered in the Register of Patents, and I hereby grant Letters Patent to the above-named inventor.

Date

Name, Director of the Patent Bureau (Seal).

FORM X.

LETTERS PATENT FOR IMPROVEMENT.

Nationality and Domicile ;  
Name.

Title of invention.

The above-mentioned invention being an improvement on the invention which forms the object of Patent No....., dated....., and having been declared by the examiner of the Patent Office to be a patentable improvement, has been entered in the Register of Patents and I hereby grant Letters Patent for Improvement to the above-named inventor.

Date

Name, Director of the Patent Office (Seal).

FORM XI.

LETTERS PATENT FOR A SUPPLEMENTARY PATENT. No.....

Nationality and Domicile;  
Name.

Title of invention.

The above-mentioned invention being supplementary to the invention for which the above-mentioned inventor obtained patent No. ...., dated....., and having been declared by the examiner of the Patent Office to be a patentable supplementary invention, has been entered in the Register of Patents, and I hereby grant Letters Patent for a Supplementary Invention to the above-named inventor.

Date Name, Director of the Patent Office (Seal).

FORM XII.

AMENDED LETTERS PATENT. No.....

(No. of the Original Patent.)

Nationality and Domicile;  
Name.

Title of invention.

With regard to the above-mentioned invention, the amendment of Letters Patent No. ...., dated....., having been declared admissible by the examiner of the Patent Office, I hereby grant Amended Letters Patent to the above-named patentee.

Date Name, Director of the Patent Office (Seal).

FORM XIII.

LETTERS PATENT OF DIVISION. No.....

Nationality and Domicile;  
Name.

Title of invention.

The above-mentioned invention being a division of patent No. ...., dated....., and the division having been declared admissible by the examiner of the Patent Office, I hereby grant Letters Patent of Division to the above-named patentee.

Date Name, Director of the Patent Office (Seal).

# THE DESIGN LAW.

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(LAW NO. 37, MARCH 1, 1899.)

Art. I.—Any person devising a new design relating to form, pattern, colours, or a combination thereof, which is applicable to industrial goods, or his assignee, or successor may register it, and have the exclusive use of it in accordance with the provisions of this Law.

Art. II.—The following designs cannot be registered:—

1. Those which are identical with or similar to the form or pattern of the Imperial chrysanthemum crest.
2. Those which are or may be injurious to public order or morality.
3. Those which have been publicly known or used before the application for registration was filed, or those which are similar thereto. But this rule does not apply to those which are similar to the applicant's own registered design or designs.

Art. III.—The term for the exclusive use of a design is ten years, reckoned from the day of registration. But the right of exclusive use of a design similar to an original shall terminate with that of the original.

Art. IV.—The exclusive use of a design is restricted to the article or articles, designated by the applicant, according to the classification fixed by the Minister of State for Agriculture and Commerce.

Art. V.—The right to apply for the registration of a design which has been devised at the request of another or at the expense of an employer, belongs to the person who made the request, or to the employer. But this rule does not apply to cases where a special contract has been made.

Art. VI.—The right of exclusive use of a design may, with or without restrictions, be assigned, or be made joint property, or be pledged, in which cases the contracts cannot be set up against a third party, unless, upon application, they are registered at the Patent Office.

A person who has a design or designs similar to an original in his possession, cannot obtain registration, as mentioned in the preceding clause, unless the similar design or designs be assigned, or be made joint property, or be pledged together with the original.

Art. VII.—No official of the Patent Office shall, during his service, own the right of exclusive use of a design, unless he has obtained it by succession, or has owned it before his appointment.

Art. VIII.—Any person who desires to have a design registered, shall make application to the Director of the Patent Office specifying the article or articles to which the design is to be applied, and annexing a model, specimen, or drawings for each design.

The Director of the Patent Office may order the applicant to send in models, specimens, drawings, or written explanations.

Art. IX.—When there are two or more applications for registration of identical or similar designs, the application having the prior date shall be registered; if the

applications are made at the same time, neither shall be registered. But this rule does not apply to cases where the parties, by mutual agreement, make a joint application for joint ownership, or where only one applicant remains ultimately.

Art. X.—If a person, who has applied for registration of a design in a country belonging to the International Union for the Protection of Industrial Property, makes application for registration of the same design in this Empire within the term of four months after the date of the filing of the original application, the application shall have the same validity as if it had been made on the date of the original application.

Art. XI.—If a design already registered is found to have been registered in contravention of Art. I., II., V., or IX., the registration shall be void.

Art. XII.—If a registered design comes under any of the following cases, the Director of the Patent Office may cancel the registration:—

1. If the owner of a registered design neglects to pay the design fee within sixty days after it falls due.
2. If, without proper reason, the owner of a registered design fails, for a period of six months or more, to appoint, in accordance with Art. XXII., the agent mentioned in Art. VI. of the Patent Law.

Art. XIII.—The owner of a registered design shall pay the following fees for each design:—

From the first year to the third year inclusive, *yen 3* annually.

From the fourth year to the sixth year inclusive, *yen 5* annually.

From the seventh year to the tenth year inclusive, *yen 7* annually.

If a person has obtained the registration of a design or designs similar to an original in his possession, he shall pay *yen 3* once for all for each design.

Art. XIV.—The annual design fee shall be paid in advance on the date corresponding to the date of the Certificate of Registration. The design fee for the first year, mentioned in the second clause of the preceding article, shall be paid within sixty days after the receipt of the decision granting registration.

No advanced fees shall be returned, but in case fees for more than two years have been paid at one time in advance, the amount which has not yet fallen due shall be returned.

Art. XV.—The owner of a registered design shall make an indication that it is a registered design on the articles to which the design is applied.

Art. XVI.—If a witness or an expert gives false evidence or a false opinion before the Patent Office or the court to which the case was entrusted by the Patent Office, he shall be punished with imprisonment with hard labour for not less than one month and not more than one year, and a fine of not less than *yen 5* and not more than *yen 50*.

If a person has induced another by bribery or otherwise to give false evidence or a false opinion, he shall be liable to the same punishment as that mentioned in the preceding clause.

If a person, who has committed one of the offences mentioned in the two preceding clauses, confesses it to the Patent Office or the court to which the case has been entrusted by the Patent Office, before the decision has been pronounced or judgment rendered, he shall not be punished.

Art. XVII.—Any person who has counterfeited or imitated the registered design of another, or who knowingly sells an article bearing such counterfeited or imitated design, shall be punished with imprisonment with hard labour for not less than fifteen days and not more than one year, or a fine of not less than *yen 10* and not more than *yen 200*.

Any person who imports from abroad articles infringing the rights of the owner of a registered design, or who knowingly sells such articles, shall be liable to the same punishment as that mentioned in the preceding clause.

Art. XVIII.—In cases coming under the previous article, the confiscated goods shall be given to the owner of the registered design.

Art. XIX.—Any person who obtains the registration of a design by fraudulent means, or who applies to an article bearing an unregistered design an indication that the design is registered, or any indication calculated to convey that impression, or who knowingly sells such articles, shall be punished with imprisonment with hard labour for not less than fifteen days and not more than six months, or a fine of not less than *yen* 10 and not more than *yen* 100.

Any person who for the purpose of promoting the sale of an article to which an unregistered design is applied, makes by means of advertisement, sign-board, hand-bill, or otherwise, an indication suggesting that the design is registered, shall be liable to the same punishment as that mentioned in the preceding clause.

Art. XX.—Criminal proceedings shall not be instituted with respect to offences falling under Article XVII., unless the injured party or parties denounce them.

Art. XXI.—If the owner of a registered design neglects to make an indication that it is a registered design, he may claim damages in a civil action against those persons only who have infringed his right knowing that it is a registered design.

Art. XXII.—Articles VI. to X. inclusive, Articles XII., XIII., XV., XXI., XXIII., XXVIII. to XXXVII. inclusive, XLIII., and LI. of the Patent Law shall be applicable correspondingly to the Design Law.

#### SUPPLEMENTARY RULES.

Art. XXIII.—This Law shall come into force in the first day of the seventh month of the thirty-second year of Meiji (July 1, 1899).

Art. XXIV.—The Design Regulations promulgated by Imperial Ordinance No. 85 of the twenty-first year of Meiji shall cease to be in force from the date of operation of this Law.

Designs registered in accordance with the Design Regulations now in force shall have the same validity as those registered according to this Law, during the term for which they are registered.

Any application or demand with regard to designs which may not have been decided before the date when this Law comes into operation, shall be dealt with as if it has been made in accordance with this Law.

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# THE DESIGN RULES.

ORDINANCE OF THE MINISTER FOR AGRICULTURE AND COMMERCE.  
(No. 14, JUNE 20, 1899.)

Art. I.—Applications for the registration of designs shall be made out separately for each class of goods prescribed in Art. VII.

Art. II.—A model or specimen shall be made so as not to exceed 2 cubic *shaku*; but this limitation does not apply when circumstances render it impossible.

Art. III.—Drawings shall show the parts necessary for the illustration of a design. When a photograph is deposited instead of a model, it shall not be mounted.

Art. IV.—The examiner shall examine applications in the order of their serial number.

Art. V.—The Certificate of Registration of Design shall be prepared according to Form V. or VI.

Art. VI.—In the Register of Designs, the following particulars shall be entered:—

1. Serial number of registration;
2. Title of design;
3. Class, and item in that class, to which goods belong;
4. Name and address of the owner of registered design;
5. In the case of a design similar to another, the registration number of the latter and its date of registration;
6. In the case of the transfer of a design, the fact and the restrictions, if any;
7. In the case of making a design joint property, the fact and the respective share of each owner, when the shares are definitely apportioned;
8. In the case of pledging a design, the amount of the debt, the rate of interest, the period of payment, order of the right of the pledge, and the date of the contract;
9. Name and address of the agent of the owner of a registered design who has no domicile in the Empire;
10. In the case of invalidity, cancellation, or lapse, the cause and the date;
11. In the case of the delivery of new Letters Patent, the fact and the date of delivery;
12. Date of registration.

Art. VII.—The applicant shall indicate goods to which he intends to apply his design, according to the following classification:—

Class I. Clothing.—Upper garments, under garments, overcoats, shirts, girdles, collars, neckerchiefs, shawls, &c.

Class II. Head-Dress and Dress Ornaments.—Combs, *kanzashi*, *megake*, breast-ornaments, neckcloths, bracelets, rings, buttons, &c.

Class III. Time-pieces and Accessory Articles.—Watches, clocks, chains, charms, &c.

Class IV. Umbrellas, Canes, and Whips.

Class V. Articles Carried on the Person.—Purses, card-cases, tobacco-pouches, pipes, pipe-cases, sachels, &c.

Class VI. Furniture and Fittings.—Side-boards, chests of drawers, tables, chairs, bedsteads, *gaku*, screens (folding or otherwise), window-curtains, table-cloths, &c.

Class VII. Floor-Coverings.—Cotton carpets, oil-cloths, ornamented mats, &c.

Class VIII. Heating Apparatus and Accessory Articles.—Stoves, fire-braziers, smoking-boxes, charcoal-holders, coal-scuttles, tongs, &c.

Class IX. Lighting Apparatus.—Candlesticks, hand-candlesticks, lamps, paper lamps, gas-lamps, electric lamps, &c.

Class X. Articles Accessory to Buildings.—Paper-doors (*shōji*), doors, ventilating panels, balustrades, handles, &c.

Class XI. Tissues and Woven Goods not included in any of the other classes.—Fabrics of silk, cotton, hemp or wool, *fukusa*, handkerchiefs, &c.

Class XII. Network and Braided Goods not included in any of the other classes.—Laces, silk-braids, fringes, &c.

Class XIII. Lacquer-ware not included in any of the other classes (including varnish, paints, &c.).

Class XIV. Porcelain and Pottery not included in any of the other classes (including bricks, tiles, &c.).

Class XV. Glass not included in any of the other classes.

Class XVI. Cloisonné enamel not included in any of the other classes.

Class XVII. Metal Goods not included in any of the other classes.

Class XVIII. Stone Goods not included in any of the other classes.

Class XIX. Articles made of Wood, Bamboo, Ivory or Horn, not included in any of the other classes.

Class XX. Paper and Paper Goods not included in any of the other classes.—Stamped paper (*mongumi*), paper in imitation of leather, paper for sliding doors, wall paper, paper for book-covers, *shikishi*, *tanzaku*, writing paper, envelopes, &c.

Class XXI. Fur, Leather, and Fur or Leather Goods not included in any of the other classes.

Class XXII. Head-gear.—Hats, caps, &c.

Class XXIII. Foot-gear and Accessory Goods.—*Geta*, *zōri*, boots and shoes, *hanazō* (clog or sandal), *tsumakake*, &c.

Class XXIV. Fans.

Class XXV. Eating and Drinking Vessels.—Dining tables, wood cups, earthen cups, plates, bowls, drinking cups, bottles, cake-vessels, iron pots, earthen tea-pot, *chakku*, cupboards, vessels for black tea, vessels for coffee, spoons, eating-sticks, cases for eating-sticks, *jūbako*, &c.

Class XXVI.—Study Furniture.—Ink-stones, cases for pens, desk-screens, paper-weights, ink-rests, water-holders, materials for making seals, ink-pads, book-stands, *suzuri-bako*, pens and ink-brushes, ink, ink-stands, pen-holders, &c.

Class XXVII. Musical Instruments, Toys, and Objects or Implements used in Sports or Games.

Class XXVIII. Cakes and other Eatables.

Class XXIX. Goods not included in any of the other classes.

Art. VIII.—The provisions of the Patent Rules, Articles I. to XXVII., inclusive; Articles XXXII. to XXXV., inclusive; Articles XXXVIII. and XXXIX., Articles XLVIII. to LX., inclusive; Articles LXVI. and LXVII.; and Articles LXX. to LXXIV., inclusive, shall be applied correspondingly to Designs.

SUPPLEMENTARY RULE.

Art. IX.—These rules shall come into force on the day when the Design Law goes into operation.

FORM I.

APPLICATION FOR REGISTRATION OF DESIGN.

Title of design.

Claim or claims.

Goods to which the design is to be applied.

Name of deviser.

Revenue  
Stamp.

I (we), wishing to obtain registration of the above-mentioned design (as in Form I. of the Patent Rules), hereby apply for the same.

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

FORM II.

APPLICATION FOR REGISTRATION OF A DESIGN  
SIMILAR TO ANOTHER.

Title of design.

Claim or claims.

Goods to which the design is to be applied.

Name of deviser.

Serial number of the original design.

Revenue  
Stamp.

I (we), wishing to obtain registration of the above-mentioned design, hereby apply for the same.

Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

FORM III.

DEMAND FOR REGISTRATION.

Name of the owner of registered design.

Revenue  
Stamp.

Serial number of registration.

I (we), having obtained the transfer of (or right of pledge on) the above-mentioned design (or a share of it) from....., hereby apply for the registration of the fact, annexing the contract (will).

Date

Nationality and Domicile ;  
Name (Seal).

To....., Director of the Patent Office.

FORM IV.

DEMAND FOR REGISTRATION.

Name of the owner of registrated design.

Revenue  
Stamp.

Serial number of registration.

I (we), having become the joint proprietor (proprietors) of the above-mentioned design, hereby apply for the registration of the fact, annexing the contract.

Date

Nationality and Domicile ;  
Joint Owner (or Owners)—  
Name or Names (Seal or Seals).

To....., Director of the Patent Office.

FORM V.

CERTIFICATE OF REGISTRATION OF DESIGN. No.....

Nationality and Domicile ;  
Name.

Title of design.

Goods to whitch the design is to be applied.

The above-mentioned design, having been declared by the examiner of the Patent Office to be a registrable design, has been entered in the Register of Designs, and I hereby grant this Certificate of Registration of Design to the above-named deviser.

Date

Name, Director of the Patent Office (Seal).

FORM VI.

CERTIFICATE OF REGISTRATION OF A DESIGN SIMILAR  
TO ANOTHER. No.....

Nationality and Domicile ;  
Name.

Title of design.

Goods to which the design is to be applied.

The above-mentioned design being similar to the registered design No..... dated....., which is in the possession of the above-named, having been declared by the examiner of the Patent Office to be a registrable design, I hereby grant the Certificate of Registration of Design to the above-named.

Date

Name, Director of the Patent Office (Seal).

# THE TRADE-MARK LAW.

(LAW No. 38, MARCH 1, 1899.)

Art. I.—Any person desiring the exclusive use of a trade-mark for distinguishing his own merchandise may apply for registration in accordance with the provisions of this Law.

Art. II.—The characters, devices, or signs mentioned below cannot be registered as trade-marks:—

1. Those which are identical with, or similar to, the Imperial chrysanthemum crest.
2. Those which are identical with, or similar to, the national flag, the military and naval flags, or the badges of Imperial orders of Japan, or the national flags of other countries.
3. Those which are or may be injurious to public order or morality or calculated to deceive the public.
4. Those which are identical with, or similar to, marks already registered by another, or marks in the case of which not more than one year has elapsed since the registration lost its validity and which are intended to be applied to identical goods.
5. Those which are identical with, or similar to, marks used by another before the operation of this Law.
6. Those which indicate merely the common names of goods, or the place of production; those which indicate the quality, nature, or form of goods by means of characters, devices, or marks generally used in commerce; or those which are the name of a person, a trade, a company, or a firm in common use and written in ordinary style.
7. Borders, ground designs, or marks which have no special or distinctive appearance.

Art. III.—The term for the exclusive use of a trade-mark is twenty years, reckoned from the day of registration.

When a trade-mark first registered in a foreign country is registered in this Empire, the term for its exclusive use shall accord with that of the original registration, but shall not exceed twenty years.

Art. IV.—If the owner of a registered trade-mark desires to continue the use of his trade-mark after the expiration of the term for its exclusive use, he may again apply for its registration.

Art. V.—The exclusive use of a trade-mark is confined to the goods designated by the applicant according to the classification of goods fixed by the Minister of State for Agriculture and Commerce.

Art. VI.—If the owner of a registered trade-mark assigns his business, or engages in it jointly with another person, he may assign the trade-mark or make it joint property. But in these cases the contract cannot be set up against a third party, unless, upon application, it has been registered at the Patent Office.

If the owner of a registered trade-mark has a trade-mark, or trade-marks, similar to it for the same goods, then unless he assigns the similar trade-marks, or makes them

joint property or discontinues the use of them, the registration mentioned in the preceding clause shall not be made.

Art. VII.—Any person desiring to have his trade-mark registered, shall make application to the Director of the Patent Office, specifying the goods for which the trade-mark is to be used, and annexing a specimen or representation thereof, for each trade-mark.

Art. VIII.—If two or more persons apply for the registration of identical or similar trade-marks for the same goods, the application which has priority of date shall be registered; if the applications are filed at the same time, none shall be registered. But this rule does not apply to cases where only one applicant remains.

Art. IX.—If a person, who applied for the registration of a trade-mark in a country belonging to the International Union for the Protection of Industrial Property, makes application for registration of the same trade-mark in this Empire within four months after the date of the filing of the original application, the application shall have the same validity as if it had been made on the date of the original application.

Art. X.—If trade-marks already registered are found to have been registered in contravention of Art. II. or VIII., they shall be invalid. But this rule does not apply to the cases of trade-marks registered under sub-headings 4 or 5 of Article II., or in contravention of Article VIII., when three years have elapsed since the day of registration.

Art. XI.—If a registered trade-mark comes under any of the following cases, the Director of the Patent Office may cancel its registration.

1. If the owner of a registered trade-mark adds to his trade-mark a false statement concerning the place of production, quality, etc.
2. If the owner of a registered trade-mark neglects, without sufficient reason, for six months or more to appoint, in accordance with Article XX., the agent mentioned in Article VI. of the Law of Patents.

Art. XII.—If the owner of a registered trade-mark discontinues the business in which the trade-mark is used, the right of exclusive use of the trade-mark shall expire.

Art. XIII.—Any person who has his trade-mark registered shall pay a fee of *yen* 30 for each trade-mark for each class of goods upon which it is to be used. This rule shall apply also in the case of the continuance of trade-mark at the expiration of the term.

Art. XIV.—The Patent Office shall issue an Official Journal of Trade-Marks and publish therein important matters concerning the registration of trade-marks.

Art. XV.—If a witness or an expert gives false evidence or a false opinion before the Patent Office or the court to which the case has been entrusted by the Patent Office, he shall be punished with imprisonment with hard labour for not less than one month and not more than one year, and with a fine of not less than *yen* 5 and not more than *yen* 50.

If a person has induced another by bribery or otherwise to give false evidence or a false opinion, such person shall be liable to the punishment mentioned in the preceding clause.

If a person who has committed any of the offences mentioned in the two preceding clauses confesses his offence to the Patent Office or the court entrusted with the conduct of the case by the Patent Office, before the decision or judgment in the case is rendered, he shall not be punished.

Art. XVI.—Any person who manufactures and gives, circulates, or sells a trade-mark identical with or similar to one which he knows to be the registered trade-mark of another, without the latter's permission, or who uses for articles of the same kind a trade-mark identical with or similar to one which he knows to be the registered trade-mark of another person, or who knowingly sells or stores such articles for sale, shall be punished with imprisonment with hard labour for not less than one month and not more than two years, or with a fine of not less than *yen* 20 and not more than *yen* 500.

Any person who uses for articles of the same kind a vessel, wrapper, &c., bearing the registered trade-mark of another person, or who knowingly sells or stores such articles for sale, or who by advertisement, sign-board, hand-bill, or other means, uses, for the purpose of selling his goods, a trade-mark identical with, or similar to, one which he knows to be the punishment mentioned in the preceding clause.

Art. XVII.—Any person who has obtained the registration of a trade-mark by fraudulent means, or who has made an indication that it is a registered trade-mark or any indication calculated to convey that impression to an unregistered trade-mark, or who knowingly sells or stores articles with such a false indication, shall be punished with imprisonment with hard labour for not less than fifteen days and not more than one year, or with a fine of not less than *yen* 10 and not more than *yen* 300.

Any person who by advertisement, sign-board, hand-bill, or other means makes an indication that an unregistered trade-mark is registered, or any indication calculated to convey that impression, shall be liable to the punishment mentioned in the preceding clause.

Art. XVIII.—In cases falling under Article XVI. and Article XVII., the trade-mark and instruments used to make the same shall be forfeited, and all articles, vessels, wrappers, &c. from which the trade-mark is inseparable, shall be destroyed.

Art. XIX.—Criminal proceedings shall not be instituted with respect to offences falling under Article XVI., unless the injured party or parties denounce them.

Art. XX.—Articles VI. to X., inclusive, Articles XII., XIII., XV., XXI., XXIII., Articles XXVIII. to XXXVII., inclusive, and Articles XLIII. and LI. of the Patents Law shall apply correspondingly to this Law.

Art. XXI.—If an association of persons carrying on the same branch of industry or commerce, which has been admitted by the proper authority, desires to use exclusively its mark as a trade-mark, it may apply for registration in accordance with the provision of this Law.

A trade-mark registered according to the preceding clause shall be regarded as a registered trade-mark.

#### SUPPLEMENTARY RULES.

Art. XXII.—This Law shall go into force on the first day of the seventh month of the thirty-second year of Meiji (July 1, 1899).

Art. XXIII.—The Trade-Mark Regulations promulgated by Imperial Ordinance No. 86 of the twenty-first year of Meiji shall cease to be in force from the date of the operation of this Law.

A trade-mark which has been registered in accordance with the Trade-Mark Regulations shall have the same validity as that registered in accordance with this Law.

Any application or demand with regard to trade-marks which may not have been decided before the day on which this Law comes into operation, shall be dealt with as if it has been made in accordance with this Law.

Art. XXIV.—As to trade-marks which come under Article II., sub-heading 3, of the Trade-Mark Regulations promulgated by Imperial Ordinance No. 86 of the twenty-first year of Meiji, or which have been registered in contravention of Article VIII., and are therefore in either case invalid according to Article X. of the same Regulations, no person can demand a trial for the annulment of registration if two years have elapsed since this Law went into operation.



# THE TRADE-MARK RULES.

ORDINANCE OF THE MINISTER FOR AGRICULTURE AND COMMERCE.  
(No. 15, JUNE 20, 1899.)

Art. I.—Applications for the registration of a trade-mark shall be made separately for each class of goods prescribed in Art. XV.

Art. II.—When any person wishes to obtain the registration in this Empire of a trade-mark which has been registered in a foreign country, the applications shall be accompanied by a copy, certified by the government of that country, of the certificate of registration and specification of the trade-mark.

Art. III.—When any person wishes to continue the use of his trade-mark after the expiration of the term, he shall make application before the expiration of the term.

The application mentioned in the preceding clause shall be accompanied by the certificate of registration. When any person wishes to continue in this Empire the use of a trade-mark for the continued use of which in a foreign country he has already obtained permission, his application shall be accompanied by a document proving the existence of the permission by the foreign government.

Art. IV.—When any person wishes to obtain registration of joint property in a trade-mark, he shall file a document certifying that the business is carried on in common.

Art. V.—Specimens or representation of a trade-mark shall be made on tough paper.

Three copies of specimens or representations shall be filed; but the Director may order further copies, if he thinks it necessary.

Art. VI.—The examiner shall examine applications in order of their serial number.

Art. VII.—When the examiner has decided that a trade-mark is to be registered, the Director shall send a written statement of the decision to the applicant.

When the applicant has received the written statement of decision, he shall pay the registration fee and at the same time deposit a block for printing the mark at the Patent Office.

Art. VIII.—Blocks for printing the trade-mark shall be made of wood or metal, and shall not exceed 4 *sun* in length, and 3 *sun* in breadth, and 76 *rim* in depth.

The block shall have the entire figure of the trade-mark cut or engraved on its face.

Art. IX.—The provisions of the Patent Rules, Articles XXXII. to XXXIV., inclusive, shall apply correspondingly to blocks for printing trade-marks.

Art. X.—When the applicant has complied with the conditions laid down in the second clause of Art. VII. of the Patent Law, the Director shall register the trade-mark.

Art. XI.—The Certificate of Registration of Trade-Mark shall be prepared in accordance with Forms VI. to VIII., inclusive.

Art. XII.—When any person or persons wish to obtain registration of the assignment of a trade-mark or making it joint property, he or they shall make application, annexing a document certifying that the business has been assigned, or that it is carried on in common.

Art. XIII.—The registration fee shall be paid within 60 days from the receipt of the written statement of decision.

Art. XIV.—In the Register of Trade-Marks, the following particulars shall be entered:—

1. Serial number of registration;
2. Class and item in that class to which goods belong;
3. Name of owner of registered trade-mark (in the case of an association of persons carrying on the same branch of industry or commerce, its title, office, and the name of its representative);
4. In the case of a foreign trade-mark, the term of the original registration;
5. In the case of continued use of a trade-mark at the expiration of the term, the fact;
6. In the case of assignment or making joint property, the fact;
7. In the case of trade-mark similar to another, the serial number of the original mark;
8. In the case of an owner of a trade-mark who has no domicile in this Empire, the name and address of his agent;
9. In the case of invalidity, cancellation, or lapse, the cause and the date when the cause arose;
10. In the case of delivery of a new Certificate of Registration, the fact and the date of delivery;
11. Date of registration.

Art. XV.—An applicant for a trade-mark shall designate the goods on which the trade-mark is to be used, according to the following classification.

Class I. Chemicals, Medicines, and Articles accessory to Medicines.—Acids, salts, alkalis, bleaching powder, gums, glue, phosphorus, soap, alcohol, glycerine, quinine, morphine, tinctures, syrups, decoctions, mixtures, infusions, pills, plasters, powder, tablets, infections, raw drugs, oils, lime, sulphur, mineral water, musk, skin powder, table-salt, mugwort, antiseptics, deodorizers, insecticides, bandages, gauze, lint, cotton-wool, sponges, etc.

Class II. Dyes, Pigments, and Mordants.—Indigo balls, indigo, purple roots, *beni*, vermillion, minium, mineral green, ultramarine, prussian blue, white lead, chalk, gamboge, gold and silver dust, tooth-dye, green vitriol, alum, &c.

Class III. Lacquering and Varnishing Materials.—Lacquer, varnish, paints, *shibu*, blacking, boot-polish, anti-corrosive, water-proof material, &c.

Class IV. Perfumes, Incense, and those Cosmetiques which do not belong to any other Class.—Perfumed waters, perfumes, pomades, scent-bags, incense-sticks, face-lotions, &c.

Class V. Metals and Half-Manufactured Metals.—Pig iron, wrought iron, steel, bar iron, tin-plates, plate and sheet iron, iron wire, copper, sheet copper, copper wire, lead, sheet lead, zinc, sheet zinc, tin, alloys, &c.

Class VI. Manufactured Metal Goods.—Castings, forgings, engravings, net-work, &c.

Class VII. Edged Tools and Sharp-Pointed Tools.—Sickles, saws, chisels, drills, cold chisels, axes, knives, razors, kitchen-knives, planes, files, pins, nails, fire-hooks, &c.

Class VIII. Precious Metals, their Imitations and Goods made of, or inlaid with, Precious Metals (including Aluminium, Nickel, and Britannia-metal).—Gold, silver, *shibuchi*, *shakudo*, alloys, plated goods, and gold and silver lace.

Class IX. Precious Stones, their Imitations, and Goods made of, or inlaid with, Precious Stones.—Diamonds, corals, pearls, agate, quartz, topaz, emerald, &c.

Class X. Minerals.

Class XI. Stones, their Imitations, as well as Manufactured and Engraved Goods.—Slate, marble, whet-stone, stone implements, &c.

Class XII. Plaster and Clay or Sand.—Plaster, cement, gypsum, asphalt, sand, &c.

Class XIII. Porcelain and Earthenware.—Porcelain, faience, earthenware, tiles, bricks, &c.

Class XIV. Cloisonné Ware.

Class XV. Glass and Glass Ware (including enamelled goods).—Glass panes, glass-tubes, glass-bottles, glass-balls, &c.

Class XVI. Machinery (including the parts of a machine).—Weaving machines, spinning jennies, sewing machines, sugar-manufacturing machines, printing machines, steam-engines, boilers, and all other machines.

Class XVII. Agricultural and Industrial Implements.—Ploughs, spades, hoes, winnowing fans, harrows, pincers, hammers, lines and ink used by carpenters, &c.

Class XVIII. Scientific, Medical, Surveying, and Educational Instruments and Tools (including spectacles and arithmetical instruments).

Class XIX. Measuring and Weighing Instruments.

Class XX. Carrying Machines.—Wagons, coaches, *jinrikisha*, cycles, perambulators, ships, railway cars, wheels, &c.

Class XXI.—Musical Instruments.

Class XXII. Time-Pieces and Accessory Articles.

Class XXIII. Guns, Shot, and Explosives.—Cannon, small arms, fowling pieces, pistols, gun-powder, gun-cotton, dynamite, percussion-caps, fire-works, &c.

Class XXIV. Silk-Worms, Egg-Cards, and Cocoons.

Class XXV. Floss Silk, Cotton, Hemp, Jute, Feathers, and their Rough Manufactured Goods.

Class XXVI. Raw Silk, Silk-Thread, and Wild Silk.—Thread (including *koto* strings and gold and silver thread).

Class XXVII. Cotton Yarn.

Class XXVIII. Woollen Yarn.

Class XXIX. Hemp Yarn and Threads not belonging to Classes XXVI. to XXVIII., inclusive.

Class XXX. Silk Cloth.

Class XXXI. Cotton Cloth.

Class XXXII. Woollen Cloth.

Class XXXIII. Hemp Cloth.

Class XXXIV. Cloths not belonging to Classes XXX. to XXXIII., inclusive.

Class XXXV. Net-Work, Knitted Fabrics, and Lace (including braids of all sorts).

Class XXXVI. Coverings.—Garments, *kanmuri*, hats, caps, collars, cuffs, neck-ties, shirts, under-vests, drawers, gloves, stockings, socks, knitted articles, &c.

Class XXXVII. *Sake*.

Class XXXVIII. Sugars and Honey.—Sugar, molasses, crystallized sugar, honey, &c.

Class XXXIX. Bread and Cakes.—Diy cakes, steamed cakes, confectionery, foreign cakes, wheat gluten, sugared articles, &c.

Class XL. Tea, coffee, and Chocolate, &c.

Class XLI. Tobacco, &c.

Class XLII. Grains, Vegetables, Seeds, and Fruits.—The five cereals, vegetables, mushrooms, fruits, seeds, roots, yeast, malt, &c.

Class XLIII. Flour, Starch, and their Manufactures.—Flour, arrow-root, starch of the *yama-kurvai*, vermicelli, *yuba*, *konnyaku*, frozen *tōfu*, frozen *konnyaku*, &c.

Class XLIV. *Miso*, *Namemono*, and Salt Vegetables.

Class XLV. Provisions not belonging to other Classes.—Meat, extracts, eggs, *katsubushi*, dried cuttle-fish, dried sea-ear, *nori*, sea-weed, *arame*, *tsukudani*, tinned provisions, *umi*, mustard, pepper, &c.

Class XLVI. Milk and Dairy Products.—Milk, condensed milk, cream, butter, cheese, &c.

Class XLVII. Tobacco Pipes and Pouches.—Tobacco-pipes, tobacco-pouches, pipe-cases, tobacco-holders, &c.

Class XLVIII. Paper and Manufactured Goods.—Paper, *shikishi*, *tanzaku*, card-board, paper in imitation of leather, wall paper, oil-paper, *shibu*-paper, envelopes, paper-cases, *ikkabari*, account-books, *motoyui*, *mizuhiki*, &c.

Class XLIX. Study Furniture.—Pens (including writing brushes), Indian ink, *inniku*, ink, slate-pencils, pencils, pen-holders, *suzuri*, inkstands, paper-weights, cases for pens, pen-rests, &c.

Class L. Fur, Leather, and their Manufactured Goods (including bags of all sorts).—Fur, leather, saddles, letter cases, leather belts, shoes, catgut, bags, &c.

Class LI. Matches.

Class LII. Oils and Wax.—Petroleum oil, vegetable oil, fish oil, wax, candles, fats, etc.

Class LIII. Manures.—Dried sardines, herring refuse, oil refuse, bone-dust, rice-bran, etc.

Class LIV. Wood and Bamboo (including their barks).

Class LV. Wooden Goods, Bamboo Goods, Rattan Goods, and Lacquered and Varnished Articles.—Boxes, turned ware, cooper's ware, basket work, *kumimono*, &c.

Class LVI. Goods Manufactured from Tortoise Shell, Horns, and Tusks, and their Imitations.

Class LVII. Straw, Grass, and their Manufactured Goods, not belonging to the other Class.—Straw, mats, straw hats, rope, straw braid, &c.

Class LVIII. Umbrellas, Canes, Foot-Gear, and Accessory Articles.—Umbrellas, canes, *gela*, *zōri*, *setta*, *hanao*, *tsunakake*, &c.

Class LIX. Fans.

Class LX. Lighting Apparatus (including separate parts thereof).—Lamps, lamp-stands, candle-sticks, lanterns, &c.

Class LXI. Tooth Powder and Washing-Powder (including polishing powder).

Class LXII. Brushes and False Hair.

Class LXIII. Toys and Things for Sports and Games (including artificial flowers and *hanakanzashi*).—Balls, *go*, chess, dolls, tops, bows, billiard apparatus, pictures in relief (*oshiye*), playing cards, &c.

Class LXIV. Drawings and Photographs.

Class LXV. Books, Newspapers, and Magazines.

Class LXVI. Foreign Liquors.—Wines, beer, brandy, vermouth, whisky, liqueur, &c.

Class LXVII. Liquors not belonging to any other Class.—*Mirin*, *shirozake*, *shōchū*, *nigorizake*, *kamenotoshi*, mixtures of *shōchū*, &c.

Class LXVIII. Beverages not belonging to any other Class.—Soda water, orange syrup, lemonade, ice, &c.

Class LXIX. *Shōyu* and Vinegar.

Class LXX. Combustibles.—Coal, coke, fire-wood, charcoal, *tsukegi*, wicks for lamps or candles, &c.

Class LXXI. Beds.—Beds, quilt, cushions, pillows, mosquito nets, &c.

Class LXXII. Manufactures of India rubber not belonging to any other Class.

Class LXXIII. Goods not belonging to any other Class.

Art. XVI.—Documents which an association files in accordance with Article XXI. of the Trade-Mark Law, shall carry the name, place of business of the association, and the signature and seal of its representative.

When an association desires to obtain the registration of its mark, it shall apply for it, annexing a document certifying that it has been admitted by the proper authority.

Art. XVII.—The provisions of the Patent Rules contained in Articles I. to XXVII., inclusive, Article XXXII., Article XXXV., Articles XXXVIII. and XXXIX., Articles XLVIII. to LIX., inclusive, Articles LXVI. and LXVII., Articles LXX. to LXXIV., inclusive, are applicable correspondingly to Trade-Marks.

#### SUPPLEMENTARY ARTICLE.

Art. XVIII.—These Rules shall come into force on the day when the Trade-Mark Law comes into operation.

FORM I.

APPLICATION FOR REGISTRATION OF TRADE-MARK.



Name of goods to which the  
trade-mark is to be applied.

I (we), wishing to obtain registration of the above trade-mark, hereby apply for  
the same. (Form I. of the Patent Rules is to be followed.)

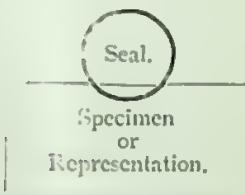
Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

FORM II.

APPLICATION FOR CONTINUANCE OF TRADE-MARK.



Serial number of registration.  
Name of goods to which the  
trade-mark is to be applied.

I (we), wishing to obtain registration of the above trade-mark, hereby apply for  
the same.

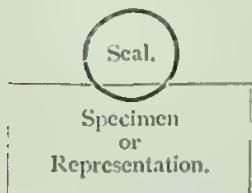
Date

Nationality and Domicile ;  
Profession ;  
Name (Seal).

To....., Director of the Patent Office.

FORM III.

APPLICATION FOR REGISTRATION OF A MARK USED  
BY AN ASSOCIATION.



Name of goods to which the  
trade-mark is to be applied.

Our Association, wishing to use the above mark as its trade-mark, hereby applies  
for registration of the mark, annexing the certificate that it has been admitted by the  
proper authority.

Date

Address ;

Name of the Association.

Address ;

Name, Representative (Seal).

To....., Director of the Patent Office.

FORM IV.

DEMAND FOR REGISTRATION.

Name of the owner of registered trade-mark.

Revenue  
Stamp.

Serial number of registration.

I (we), having obtained assignment of the above-mentioned trade-mark, hereby apply for its registration annexing the contract (will),

Date

Nationality and Domicile ;  
Name (Seal).

To....., Director of the Patent Office.

FORM V.

DEMAND FOR REGISTRATION.

Name of the owner of registered trade-mark.

Revenue  
Stamp.

Serial number of registration.

I (we), having become the joint proprietor (proprietors) of the above trade-mark, hereby apply for registration of the fact, annexing the contract.

Date

Nationality and Domicile ;  
Joint Owner (or Owners)—  
Name or names (Seal or Seals).

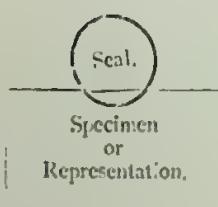
To....., Director of the Patent Office.

FORM VI.

CERTIFICATE OF REGISTRATION OF TRADE-MARK.

No. ....

Nationality and Domicile ;  
Name.



Name of goods to which the  
trade-mark is to be applied.

The above trade-mark having been declared by the examiner of the Patent Office to be a registrable trade-mark, I have entered it in the Register of Trade-marks and hereby grant this Certificate of Registration to the above-named.

Date

Name (Seal),  
Director of the Patent Office.

FORM VII.

CERTIFICATE OF REGISTRATION OF FOREIGN TRADE-MARK.

No. ....

	Specimen or Representation.
---	-----------------------------------

Nationality and Domicile;

Name.

Name of goods to which the  
trade-mark is to be applied.  
Period of exclusive use.

The above trade-mark, having been registered in..... (Name of country) and having been declared by the examiner of the Patent Office to be a registrable trade-mark, I have entered it in the Register of Trade-Marks, and hereby grant this Certificate of Registration of a Foreign-Mark to the above-named.

Name (Seal),  
Director of the Patent Office.

FORM VIII.

CERTIFICATE OF CONTINUED REGISTRATION OF TRADE-MARK.

No. .... (Serial Number of the Original Registration.)

	Specimen or Representation.
---	-----------------------------------

Nationality and Domicile;

Name.

Name of goods to which the  
trade-mark is to be applied.

The above trade-mark, namely, trade-mark No. ...., dated....., having been declared by the examiner of the Patent Office to be a trade-mark registrable in continuance, I have entered it in the Registers of Trade-Marks, and hereby grant this Certificate of Continued Registration to the above-named.

Date

Name (Seal),  
Director of the Patent Office.



# LAW OF REGISTRATION TAX.

(LAW No. 60, MARCH 13, 1899.)

The text of the Law of Registration Tax shall be amended as follows.

Art. XI.—Any person who registers matters relating to a Patent shall pay the following registration tax:—

1. For registration of transfer or making into joint property ... 10 *yen* for each case.
2. For registration of pledge ..... 5 *yen* for each case.

Art. XII.—Any person who registers matters relating to Design shall pay the following registration tax:—

1. For registration of transfer or making into joint property ..... 2 *yen* for each class of goods.
2. For registration of pledge ..... 1 *yen* for each class of goods.

Art. XIII.—Any person who registers the following matters relating to a Trade-Mark shall pay the following registration tax:—

For registration of transfer or making into joint property ..... 10 *yen* for each class of goods.

## SUPPLEMENTARY RULE.

This Law shall come into force from July 1, Meiji 32, (1899).

## LAW OF REGISTRATION TAX.

(LAW No. 27, MARCH 27, 1896.)

Art. XVII.—Registration taxes shall be paid with revenue stamps, provided that the Government may levy such taxes in cash according to the provisions of an Imperial Ordinance.

## RULES OF REGISTRATION TAX.

(ORDINANCE OF THE MINISTER OF STATE FOR FINANCE No. 6, MARCH 30, 1896.)

Art. I.—In paying registration taxes with revenue stamps, the stamps shall be attached to the documents for registration.

IMPERIAL ORDINANCE No. 140, JULY 14, 1898.

Hereafter in the case of stamps attached to documents, tobacco stamps, stamps used in legal proceedings, medicine stamps, or registration stamps, revenue stamps shall be employed, and their form shall be determined by the Minister of State for Finance. Provided that any documentary stamps, tobacco stamps, stamps used in legal proceedings, medicine stamps and registration stamps hitherto in use, may continue to be employed in lieu of revenue stamps for a certain time.

IMPERIAL ORDINANCE No. 195, May 13, 1899.

Art. I.—Any person filing documents in connection with Patents, Designs, or Trade-Marks, shall pay fees as follows:—

	<i>Yen. Sen.</i>
1. On application for a Patent ; for each case .....	5.00
2. On application for a Supplementary Patent ; for each case .....	3.00
3. On application to amend Letters Patent ; for each case .....	5.00
4. On application for the Division of Letters Patent ; for each case .....	5.00
5. On application of registration of a Design ; for each case .....	1.00
6. On application of registration of Trade-Mark ; for each case .....	3.00
7. On application of registration of an association mark ; for each case .....	3.00
8. On application of registration of renewal of the use of a Trade-Mark ; for each case .....	2.00
9. On demand for Re-examination ; for each case .....	3.00
10. On demand for a trial ; for each case .....	12.00
11. On demand for copy of an original document ; per sheet of 13 lines per page and 25 characters per line in the Japanese language ; portions of a page, as here defined, shall be reckoned as a whole sheet, and the charge shall be the same for every 100 words in an European language and for every fraction thereof .....	.10
12. On demand for preparation of drawings ; the amount shall be fixed by the Director of the Patent Office within the limits of 30 sen and 30 yen, according to the labour required for the preparation .....	—
13. On demand of sight of the Register ; for each case .....	.10
14. On notice relating to Exhibition or Competitive Show ; for each case .....	1.00

Art. II.—Fees shall be paid with revenue stamps.

#### SUPPLEMENTARY RULE.

Art. III.—This ordinance shall come into force on the 1st July, 1899.

#### ORDINANCE OF THE MINISTER OF STATE FOR AGRICLRTURE AND COMMERCE. No. 16, JUNE, 20, 1899.

Fees for written demands or requests relating to Patents, Designs, or Trade-Marks are fixed as follows :—

Art. I.—Any person filing a written demand or request relating to a Patent, Design, or Trade-Mark shall pay the following fees :—

	<i>Yen. Sen.</i>
1. Application for change or postponement of term ; for each case .....	.20
2. Application for certificate ; for each case .....	.50
3. Application for the determination of the incidence and amount of the costs of a trial ; for each case .....	.50
4. Application for assessment of the amount of compensation to be paid to the original patentee in case of the grant of a Patent of Improvement ; for each case .....	.50
5. Application for new Letters Patent, new Certificate of Registered Design, or new Certificate of Registered Trade-Mark in case of succession : for each case .....	1.00
6. Application for new Letters Patent in other cases ; for each case .....	3.00
7. Application for new Certificate of Registered Design or Trade-Mark in other cases ; for each case .....	1.00

Art. II.—Fees shall be paid with revenue stamps.

#### SUPPLEMENTARY RULE.

Art. III.—This Ordinance shall come into force on the 1st July, 1899.

A TABLE OF PATENT, DESIGN, AND TRADE-MARK FEES,  
REGISTRATION TAX AND OTHER FEES.

I.—Patent fees :—

1st term.	From 1st year to 3rd year .....	10 yen annually
2nd "	" 4th " 6th " .....	15 "
3rd "	" 7th " 9th " .....	20 "
4th "	" 10th " 12th " .....	25 "
5th "	" 13th " 15th " .....	30 "

II.—Design fees :—

1st term.	From 1st year to 3rd year .....	3 yen annually
2nd "	" 4th " 6th " .....	5 "
3rd "	" 7th " 10th " .....	7 "

III.—Trade-Mark fees :—

For original registration or continuance . . . . . 30 yen for the whole term

IV.—Registration Tax :—

Patent	1. For registration of transfer or making	
	into joint property .....	10 yen for each case
Design	2. For registration of pledge .....	5 "
	1. For registration of transfer or making into joint property .....	2 yen for each class of goods
Trade-Mark	2. For registration of pledge .....	1 " "
	For registration of transfer or making into joint property .....	10 " "

V.—Other Fees :

1. On application for a Patent ; for each case .....	5.00
2. On application for a Supplementary Patent ; for each case .....	3.00
3. On application to amend Letters Patent ; for each case .....	5.00
4. On application for the Division of Letters Patent ; for each divided Letters Patent .....	5.00
5. On application of registration of a Design ; for each case .....	1.00
6. On application of registration of a Trade-Mark ; for each case .....	3.00
7. On application of registration of an association mark ; for each case .....	3.00
8. On application of renewal of the use of a Trade-Mark ; for each case .....	2.00
9. On demand for Re-examination ; for each case .....	3.00
10. On demand for a trial ; for each case .....	12.00
11. On demand for copy of an original document ; per sheet of 13 lines per page and 25 characters per line in the Japanese language ; portions of a page, as here defined, shall be reckoned as a whole sheet, and the charge shall be the same for every 100 words in an European language and for every fraction thereof .....	.10
12. On demand for preparation of drawings ; the amount shall be fixed by the Director of the Patent Office within the limits of 30 sen and 30 yen, according to the labour required for the preparation .....	—
13. On demand of Sight of the Register ; for each case .....	.10
14. On notice relating to Exhibition or Competitive Show ; for each case .....	1.00
15. Application for change or postponement of term ; for each case .....	.20
16. Application for certificate ; for each case .....	.50
17. Application for the determination of the incidence and amount of the costs of a trial ; for each case .....	.50
18. Application for assessment of the amount of compensation to be paid to the original patentee in case of the grant of a patent of improvement ; for each case .....	.50
19. Application for new Letters Patent, new Certificate of Registered Design, or new Certificate of Registered Trade-Mark in case of succession ; for each case .....	1.00

20. Application for new Letters Patent in other cases; for each case . . . .	3.00
21. Application for new Certificate of Registered Design or Trade-Mark in other cases; for each case . . . .	1.00
N.B.—Patent, Design, Trade-Mark registration and other fees shall be paid with revenue stamps.	

#### RULES OF TRIAL IN THE PATENT OFFICE.

(IMPERIAL ORDINANCE No. 279, JUNE 17, 1899.)

Art. I.—The Director of the Patent Office shall nominate, among the judges in the Patent Office, judges for each case that comes up for trial.

Art. II.—If among the judges nominated there are some whose special situation towards the case disqualifies them to take part in the trial, the Director of the Patent Office shall cancel the nomination of such judges and shall appoint others in their stead.

Art. III.—The post of presiding judge shall be filled by the senior in official rank among the judges nominated.

Art. IV.—The presiding judge shall direct the matters relating to the trial.

Art. V.—The presiding judge may appoint one or two judges to take special charge of a case.

Art. VI.—Judgment shall not be given without special deliberation.

Art. VII.—Judgment shall be rendered by the majority of the judges, but when opinions are equally divided, the presiding judge shall have a casting vote.

Art. VIII.—In the following cases, a judge can not officiate:—

1. In a case which concerns himself or his relatives;
2. In a case in which he has been interested directly or indirectly;
3. In a case in which he has been concerned as an examiner of the Patent Office.

#### SUPPLEMENTARY RULE.

This ordinance shall come into force on the 1st July, 1899.

#### RULES FOR THE REGISTRATION OF PATENT AGENTS.

(IMPERIAL ORDINANCE No. 235, JUNE 8, 1899.)

Art. I.—In this Ordinance the term "patent agent" means a person who makes it his profession to discharge the functions of an agent in matters relating to patents, designs, and trade-marks.

Art. II.—No person shall be eligible for registration as a patent agent, unless he has full legal competence, and has passed a special examination. Regulations for the examination of patent agents shall be enacted by the Minister for Agriculture and Commerce.

Art. III.—The following persons may be registered as patent agent without examination:—

1. Those who have passed the examination for the higher civil service, or the examination for judges and public procurators.
2. Those who have completed the course in a College of the Imperial Universities, or in national or foreign schools or colleges considered to have the same status as the former.
3. Those who have been admitted to the Bar.
4. Those who have been officers of higher rank in the Patent Office, or who have been for more than two years assistant examiners in the Office.

Art. IV.—The following persons shall not be eligible for registration as patent agents:—

1. Those who have committed any of the offences defined in the Patent Law, Design Law, and Trade Mark Law, or in Art. XV. of this Ordinance.

2. Those who have committed a crime and been punished therefor. But this rule does not apply to person who have committed a political offence and have obtained amnesty or rehabilitation.
3. Those who have been punished with imprisonment, unless three years have elapsed since the expiration of the term, or since their discharge.
4. Those who are not in the enjoyment of civil rights.
5. Those who have been adjudged bankrupt or insolvent, but have not yet obtained their release, or those who have been sentenced to failure (*shindai-kagiri*), but have not yet paid off their debts.

Art. V.—If a patent agent loses the qualification defined in Art II. or III., or comes with the purview of Art. IV., his registration shall cease to be valid.

Art. VI.—Any person desiring to be registered as a patent agent shall pay a fee of 10 yen.

The above fee shall be paid with revenue stamps.

A fee once paid shall in no case be returned.

Art. VII.—An application for registration shall be accompanied by a written statement of the applicant's career (*rirekisho*) and by certificates concerning the provisions contained in the first clause of Art. II., in Art. III., and Art. IV.

Art. VIII.—In the Patent Office shall be kept the Roll of Patent Agents, wherein the following matters shall be registered:—

1. Name and residence of a patent agent.
2. His office.
3. Date of registration.

Art. IX.—When a change occurs in any of the matters enumerated in sub-headings 1 and 2 of the preceding article, a patent agent shall immediately report the fact to the Patent Office. The same rule shall apply when a patent agent discontinues his business.

When a patent agent dies, his successor shall immediately report the fact to the Patent Office.

On receipt of a report, as indicated in the two preceding clauses, the Director of the Patent Office shall register the facts of the report in the Roll of Patent Agents.

Art. X.—When the Director suspends the business of a patent agent, or rescinds a suspension previously imposed, he shall register the fact in the Roll.

Art. XI.—When the Director prohibits the business of a patent agent, or when any of the provisions of Art. V. becomes applicable, the Director shall rescind the registration in the Roll.

Art. XII.—Matters registered in the Roll of Patent Agents shall be published in the Official Gazette, the Official Journal of Patents, and the Official Journal of Trade-Marks.

Art. XIII.—No one can discharge the functions of a patent agent in cases with which he has been previously concerned as an agent of the opposite party, or while serving in the Patent Office.

Art. XIV.—If patent agents organize an association of patent agents, they shall draw up rules and submit them to the Director of the Patent Office. The same procedure must be followed in case of any change of rules. If they dissolve the association, they shall report the fact to the Patent Office.

Art. XV.—Any person who undertakes the functions of a patent agent, or declares himself a patent agent, without being registered as such, or who obtains registration by fraudulent means, shall be punished with a fine of not less than 10 yen and not more than 50 yen.

Any person who, in spite of a sentence of suspension or prohibition or of annulment of registration under Art. V., continues to perform the functions of a patent agent, shall be liable to the same punishment.

SUPPLEMENTARY RULES.

Art. XVI.—Any person who has discharged the function of a patent agent prior to the publication of this ordinance, and who does not come within the purview of Art. III., may without examination be registered as a patent agent, under the supervision of the Examination Committee of Patent Agents, provided that he applies within 30 days from the date of operation of this Ordinance.

Art. XVII.—This Ordinance shall come into force on the 1st July, 1899.

NOTIFICATION OF THE MINISTER FOR AGRICULTURE AND  
COMMERCE No. 59, JUNE 22, 1899.

From July 1, 1899, specifications and drawings relating to applications for patents, shall be prepared according to the following directions.

1. Specifications shall be written in the *kaī* or *gyō* character, 13 lines per page and 25 characters per line, on *nino* paper folded in two of which an upper margin of 1 *sun*, a lower of 0.8 *sun*, a margin of 0.2 *sun* on the left, and a space of 1 *sun* for binding, shall be left clear.
2. When a specification refers to drawings, the parts of the drawings to which it refers shall be indicated by names and marks.
3. Drawings shall be distinctly traced on a surface of 8 *sun* in length and 4.8 in width, on tough add smooth white paper or tracing cloth, of which an upper margin of 0.6 *sun*, a lower of 0.4 *sun*, a margin of 0.2 *sun* on the left, and one of 1.4 *sun* on the right, shall be left clear.
4. Drawing shall not be coloured.
5. Separate drawings shall be distinguished by number, and when the same part is represented in several drawings, it shall be indicated by the same marks. Serial numbers and marks shall be written in deep black.
6. When marks cannot be put in the exact place to which they belong, they shall be set a little apart from that place, and shall be connected with it by dotted or thin lines. No mark shall be put on shaded parts, but, under unavoidable circumstances, a portion of a shaded surface may be left clear, and a mark may be applied there.
7. To show sections, parallel lines distant 0.03 *sun* from each other shall be diagonally drawn, and different sections shall be represented by diagonal lines running in different directions.
8. When, to show configuration, it is necessary to use shades, a simple process shall be employed for inserting them, but cast shadows should be avoided as far as possible.
9. Specifications and drawings shall be signed and sealed by the applicant, and no superfluous matters shall be included in them.

NOTIFICATION OF THE MINISTER FOR AGRICULTURE AND  
COMMERCE, No. 62, JULY 1, 1899.

When, on and after July 1 of this year, any person sends to the Patent Office, in compliance with the provisions of the Patent, Design and Trade-Marks Rules, by means of a registered letter, an application, demand, notice of exhibit at exhibition or competitive show, or documents to be filed within a prescribed term, the words "Document Relating to Patent" (Design or Trade-Mark as the case may be) shall be written in red ink on the envelope.

IMPERIAL ORDINANCE No. 290, JUNE 20, 1899.

The Patent Law, Design Law, and Trade-Mark Law shall become operative in Formosa on the 1st July, 1899.

ORGANIZATION OF THE PATENT OFFICE  
(Imperial Ordinance, No. 234, December 4, 1903).

Art. I.—There shall be, under the supervision of the Minister for Agriculture and Commerce, a Patent Office which shall be charged with business relating to Patents, Designs, and Trade-Marks.

Attached to the Patent Office there shall be a Library, in which shall be kept and preserved books, documents, specimens, and models connected with examination and trial in the matters mentioned above.

Art. II.—There shall be in the Patent Office :—

A Director (of the "Chokunin" rank),

Four Secretaries and Technical Officials (of the "Sonin" rank),

Fifteen Examiners (of the "Sonin" rank),

Twenty Assistant Examiners (of the "Hannin" rank),

Ten Clerks (of the "Hannin" rank),

Three Draftsmen (of the "Hannin" rank).

Any Technical Official, who holds another post which is his principal one, may be raised to the "Chokunin" rank, provided that his principal post is in that rank.

Art. III.—The Director shall, under the supervision of the Minister for Agriculture and Commerce, control business of the Patent Office, and shall direct and superintend the officials under him.

Art. IV. The Director, Secretaries, and Technical Officials, shall officiate as judges in trials by the Office

The judges shall hear cases relating to Patents, Designs, and Trade-Marks.

Art. V.—The Examiners shall, under the direction of the Director, examine Patents, Designs, and Trade-Marks.

Art. VI.—The Assistant Examiners shall, under the direction of their superior officials, assist the Examiners in the examination of Patents, Designs, and Trade-Marks.

Art. VII.—The clerks shall discharge their duties under the direction of their superior officials.

Art. VIII.—The Draftsmen shall manage matters relating to their profession under the direction of their superior officials.

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特許局

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